Ross Powers 7/21/94

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION V
EASTERN DISTRICT OFFICE
25089 CENTER RIDGE ROAD
WESTLAKE, OHIO 44145

October 29, 1993

MEMORANDUM

SUBJECT: Multi-Media Screening Inspection Checklist, BASF-Wyandotte, Wyandotte, MI (AFE102:A9)

FROM: David R. Barna, Environmental Engineer

THRU: A. R. Winklhofer, Chief
Eastern District Office (SE-W)

TO: Addressees

On September 22-23, 1993, multimedia screening was conducted at BASF in conjunction with an NPDES Compliance Evaluation Inspection (CEI). A screening checklist has been completed. Please distribute to your staff for appropriate program review. The CEI report will be forwarded separately to the water division.

If you have any questions concerning this checklist, contact me at (216) 522-7260.

Attachment

Addressees:

Michael Mikulka,	WC-15J
Michael G. Smith,	CM-3T
Mardi Klevs,	WC-15J
Gary Gulezian,	AT-18J
Douglas Ehorn,	WQ-16J
Robert Bowden,	HSE-5J
Mark Horwitz,	HSC-9J
Joseph Boyle,	HRE-8J
Phyllis Reed,	SP-14J
Gerald Phillips,	HRU-8J
Richard Zdanowicz,	WD-17J
James Mayka,	HSRW-6J

GENERAL INFORMATION

1. Inspector(s) Name DAVID R. BARNA 2. Date 9/22-23/93 OF INSPECTION

3. Facility Name/Address
BASF CORPORATION (NORTH WORKS)
1609 BIDDLE
WYANDOTTE, MI 48192-3799

4. Facility Contact(s)/Title(s)
Carlene D. LaScola, CIH, CHMM, Ecology Services Manager
Charles E. Anderson, Ecology Services Engineer
Karen A. LeMieux, Ecology Services Engineer II
Adam C. Bickel, Environmental Specialist
Doug P. Thiel, Quality and Ecology Services Manager

5. Description of Facility Operations

SIC Code 2869; 2821; 8731; 3082

Number of Employees ~ 800

Operating Schedule MOST PROCESSES 24 hrs /day; OTHER ON VARIABLE SCHEDULES

Major Products/Production Capacity PLASTIC INTERMEDIATES (POLYOL'S), VITAMINS, THERMOPLASTIC POLYURETHANS; other products

RCRA

Observations

1. Does the facility generate or otherwise handle hazardous wastes? YES

2. Do you see any containers of hazardous waste, land disposal units, lagoons, treatment units? Approximately how many?
YES (1)

3. Were any of the units that contain or handle hazardous wastes (containers, beams, dikes, tanks, piping, impoundments, etc. in poor condition, unmarked, open, leaking, cracked, corroded, or in a condition that would allow the release or potential release of hazardous wastes? If yes, describe unit(s). Any actual or evidence of past releases observed? If so, describe waste (i.e., liquid, sludge, etc.), unit(s), and location.
None observed (current releases)

BASF has a TOLUENE REMEDIATION PROJECT - TREATING TOLUENE CONTAMINATED WATER PRIOR TO DISCHARGE THRU NPDES OUTFALL. BASF IS ALSO PUMP/TREATING HISTORICAL PROPYLENE DICHLORIDE CONTAMINATION - DISCHARGE TO WAYNE CO-WYANDOTTE WWTP. (3) (PDC)

4. Does the facility operate a boiler or industrial furnace which burns hazardous wastes? Was there any incineration of hazardous waste on site?
Not according to BASF

5. Was there any evidence of spills, leaks, or discharges of hazardous wastes? If so, provide location and description.
none observed

Interview Questions/Records Reviews

1. If the facility is a generator of hazardous waste was there a notification (EPA Form 8100-12) of hazardous waste activity? What is the quantity (kilograms/month) of hazardous wastes produced? How are they produced?
Yes, operates as LQG and <90 accumulation

Generates ~ 1.4×10^5 kg/MO (2)

2. What is the EPA Identification Number? MID 0641 97742

3. What was the basis (i.e., test, knowledge of process and waste) for determining if the facility did not did not produce or handle hazardous wastes? Who mae the determination?

ANALYSES / KNOWLEDGE OF WASTE BY BASF AND CONTRACT LABS

4. Does the facility have copies of shipping manifests? Obtain copies of a month's (or other specific time frame) set of manifests.

YES (4)

NOTES

(1) • 5 HAZARDOUS WASTE ACCUMULATION AREAS INCLUDING TWO BULK AREAS

• OVER 50 SATELITE ACCUMULATION AREAS

(2) Refer to Attachment 1 for SUMMARY OF 1993 DISPOSITION OF HAZARDOUS WASTES

(3) IN SEPT. 1993 USEPA ISSUED A DRAFT 3008(h) corrective action. BASF HAD 90 DAYS to negotiate an Administrative Order or unilateral action would be taken by USEPA. A meeting with the company and USEPA representatives was held in October. The Order seeks to have BASF address the effectiveness of its groundwater remediation activities under an existing 1986 State Consent Decree. Activities to be assessed include the effectiveness of the Toluene Remediation Project, and remediation efforts to prevent further discharges to the Detroit River. The order also seeks the investigation of 9 SWMU's and 3 areas of concern that may be contributing to groundwater and river contamination.

(4) Refer to Attachment 2 for copies of selected Manifests.

(5) Refer to Attachment 3 for an overview of Toluene Remediation Project

(6) Refer to Attachment 4 for a Discussion of RCRA regulatory status of Polyol Pond (part of NPDES treatment)

ATTACHMENT 1

BASF CORPORATION, WYANDOTTE SITE
1993 YTD DISPOSITION OF HAZARDOUS AND NONHAZARDOUS WASTE

Disposal Sites	Average lbs/gal	HazWaste (lbs)	NHWaste (lbs)	Total Waste (lbs)
BFI (via Manumit)				0
Calgon Carbon - Catlettsburgh		5600		5,600
Calgon Carbon - Pittsburgh	6	6500	60000	66,500
City Environmental (Harper)	8		158315	158,315
Clean Harbors - Baltimore	9	15385	10855	26,240
Clean Harbors - Braintree	9	25365	12270	37,635
Clean Harbors - Chicago	9	28215		28,215
Clean Harbors - Cleveland	9		9450	9,450
Clean Harbors - Natick				0
Columbus Steel Drum			478920	478,920
Michigan Disposal	8	2043105		2,043,105
Michigan Recovery	9		381922	381,922
Motors Oil Refinery	9			0
Petro-Chem Processing	8	223200	134760	357,960
Rollins - Baton Rouge	8	1823	2288	4,111
Rollins - Bridgeport	8	35780	9450	45,230
Rollins - Deer Park	8			0
Ross	10	26350		26,350
Safety-Kleen (Romulus & Toledo)	8	816		816
Wayne Disposal	9		68000	68,000

2412139 1326230

Note: Activity with Clean Harbors was high due to Adhesive/Phosphates Plant closure.

$\rightarrow 7.5 \times 10^4$ Kg/mo.

$$\frac{(2412139 \text{ lbs})(0.4536 \frac{\text{Kg}}{\text{lbs}})}{8 \text{ mo.}} = 1.37 \times 10^5 \text{ Kg/mo.}$$

ATTACHMENT 2

DNR

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

FILTER CAKE

DO NOT WRITE IN THIS SPACE

ATT. ☐ DIS. ☐ REJ. ☐ PR. ☐

1969.

Failure to file is punishable under section 299.548 MCL or Section 10 of Act 136, P.A. 1969.

Please print or type

Form Approved. OMB No. 2050-0039 Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. MID064197742 — Manifest Document No. 11336

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
BASF CORPORATION
1609 BIDDLE AVE.
WYANDOTTE, MI 48192

A. State Manifest Document Number MI 2144949

B. State Generator's ID

4. Generator's Phone (313) 246-6399

5. Transporter 1 Company Name: K & D INDUSTRIAL SERVICES

6. US EPA ID Number: MIR000727907

C. State Transporter's ID

D. Transporter's Phone (313) 729-5350

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
ENVOTECH MANAGEMENT SERVICES
49350 N SERVICE DRIVE.
BELLEVILLE, MI 48111

10. US EPA ID Number: MIR000724831

G. State Facility's ID

H. Facility's Phone (313) 697-7830

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER).	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.	N/H
a. HM NON - REGULATED ZINC HYDROXIDE FILTER CAKE	001	CM	16	T	D003	N
b.						
c.						
d.						

J. Additional Descriptions for Materials Listed Above
40%-60% ZINC HYDROXIDE
40%-60% WATER
2%-25% PAPER
NOTIFY GENERATOR IF UNDELIVERABLE
BASF W300
APPROVAL #000050M
Y90936TS Y61330R

K. Handling Codes for Wastes Listed Above
a/ /
b/ /
c/ /
d/ /

15. Special Handling Instructions and Additional Information
FOR CHEMICAL EMERGENCY, CALL CHEMTREC, DAY OR NIGHT 1-800-424-9300 1273

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR; if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: LAWRENCE SALESKI — Signature — Date: Month Day Year 08 11 93

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Date: Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: DARRYL J HARBAUGH — Signature — Date: Month Day Year 08 11 93

GENERATOR

ALL SPILLS MUST BE REPORTED TO THE MICHIGAN POLLUTION EMERGENCY ALERTING SYSTEM, IN MICHIGAN AT 1-800-292-4706 OR OUT OF STATE AT 517-373-7660 AND THE NATIONAL RESPONSE CENTER AT 1-800-424-8802 24 HOURS PER DAY.

EPA Form 8700-22 (Rev. 9/88) PR 5110 Rev. 4/90

GENERATOR 2nd COPY

DNR
MICHIGAN DEPARTMENT OF NATURAL RESOURCES

CAKE

DO NOT WRITE IN THIS SPACE
ATT. ☐ DIS. ☐ REJ. ☐ PR. ☐

1979, as amended and Act 136, PA 1969.

Failure to file is punishable under section 299.548 MCL or Section 10 of Act 136, PA 1969

Please print or type

Form Approved. OMB No. 2050-0039 Expires 9-30-92

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. MID064197742 Manifest Document No. 0958
2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
BASF CORPORATION - 1609 BIDDLE AVE.
WYANDOTTE, MICHIGAN 48192

4. Generator's Phone (313) 246-6836

A. State Manifest Document Number MI 2680245

B. State Generator's ID

5. Transporter 1 Company Name: K & D INDUSTRIAL
6. US EPA ID Number: MID 0 7 2 7 2 6 7 1 0

7. Transporter 2 Company Name
8. US EPA ID Number

C. State Transporter's ID
D. Transporter's Phone
E. State Transporter's ID
F. Transporter's Phone 313-729-3350

9. Designated Facility Name and Site Address
ENVOTECH
49350 N. SERVICE DRIVE
BELLEVILLE, MI 48111

10. US EPA ID Number: MID 0 0 0 7 2 4 8 3 1

G. State Facility's ID
H. Facility's Phone 313-697-7830

	HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER).	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.	N/H
a.	X	RQ WASTE FLAMMABLE SOLID, NOS (MAGNESIUM SILICATE, POLYOL), UN1325, DOT E-8943, ERG 32	001	CM	00000	10	Y D001	H
b.								
c.								
d.								

J. Additional Descriptions for Materials Listed Above
APPROVAL #: 13035/BASF W007 HAZARDOUS WASTE NUMBER D-002. THE WASTE SOLIDS CONTAIN 40% MAGNESIUM SILICATE, 45% POLYOL & 15% CAUSTIC. NOTIFY GENERATOR IF UNDELIVERABLE. MATERIAL MUST BE PROCESSED IMMEDIATELY. IT CAN IGNITE. CALL CHEMTREC AT 1-800-424-9300 FOR EMERGENCY ASSISTANCE

K. Handling Codes for Wastes Listed Above
a/ /
b/ /
c/ /
d/ /

15. Special Handling Instructions and Additional Information
12421

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: J. SCHWEICKHART/D. EASLEY/T. LYNCH
Signature:
Date Month Day Year

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name:
Signature:
Date Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Date Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name:
Signature:
Date Month Day Year

GENERATOR / TRANSPORTER / FACILITY

ALL SPILLS MUST BE REPORTED TO THE MICHIGAN POLLUTION EMERGENCY ALERTING SYSTEM, IN MICHIGAN AT 1-800-292-4706 OR OUT OF STATE AT 517-373-7660 AND THE NATIONAL RESPONSE CENTER AT 1-800-424-8802 24 HOURS PER DAY.

EPA Form 8700-22 (Rev. 9/88)

GENERATOR 2nd COPY

PR 5110 Rev. 10/91

Wastes which *DO NOT MEET* treatment standards
Notice from generator to disposal facility (40 CFR 268.7(a)(1)(i))

The wastes identified on manifest number MI 2680245 and bearing the EPA Hazardous Waste Number(s) D001 D002 are subject to the land disposal restrictions of 40 CFR Part 268. This waste *DOES NOT MEET* the applicable treatment standards specified in Part 268 Subpart D or exceeds the prohibitions specified in 268.32 or RCRA section 3004(d). Analytical data, where available, has been previously supplied or is attached. All treatment standards or prohibition levels exceeded by the waste are checked below.

I. Applicable treatment standards from 40 CFR 268.41(Table CCWE) or 268.42 (Tables 1 and 2) or 268.43 (Table CCW)

Check One	Waste Code	See also	Waste descriptions and/or treatment subcategory	Technology Code Circle One: Wastewaters	Nonwastewaters
X	D002	Table CCWE in 268.41 and Table CCW in 268.43	Acid, alkaline, and other subcategory based on 261.22 managed in non-CWA/non-CWA-equivalent/non-Class I SDWA systems.	DEACT and meet F039	DEACT and meet F039
____	D002	NA	Acid, alkaline, and other subcategory based on 261.22 managed in CWA, CWA-equivalent, or Class I SDWA systems.	DEACT	DEACT

II. Are there any F039 Constituents (40 CFR 268.43 CCW, 268.41 CCWE)? ___ Yes X No
If so, please list all; or circle constituents on a Table 2 attachment. _____

III. California List Prohibition Levels (40 CFR 268.32)

Does this waste contain any of the following constituents at levels greater than the California List Prohibition levels given below?

YES	NO	Constituents (MUST Check either Yes or No)
___	X	1,000 mg/kg Halogenated Organic Compounds (HOC's listed in 168.32 App. III)
___	X	50 ppm PCB's (liquid wastes)
___	X	134 mg/L Nickel (liquid wastes)
___	X	130 mg/L Thallium (liquid wastes)

IV. Additional Hazardous Characteristics (check one)

X No additional characteristics are exhibited by this waste which would require treatment beyond the standards described above.
___ Treatment standards for the additional Hazardous Characteristics requiring treatment are indicated on the attached page.

V. Certification
All treatment standards and prohibition levels applicable to this waste are indicated above.

Company Name: _____
Authorized Signature: _____ Date: 8/22/93

D001 - IGNITABLE CHARACTERISTIC HAZARDOUS WASTE

Wastes which *DO NOT MEET* treatment standards
Notice from generator to disposal facility (40 CFR 268.7(a)(1)(i))

The wastes identified on manifest number MI 2680345 and bearing the EPA Hazardous Waste Number(s) D001 D002 are subject to the land disposal restrictions of 40 CFR Part 268. This waste *DOES NOT MEET* the applicable treatment standards specified in Part 268 Subpart D or exceeds the prohibitions specified in 268.32 or RCRA section 3004(d). Analytical data, where available, has been previously supplied or is attached. All treatment standards or prohibition levels exceeded by the waste are checked below.

I. Applicable treatment standards from 40 CFR 268.41(Table CCWE) or 268.42 (Tables 1 and 2) or 268.43 (Table CCW)

Check One	Waste Code	See also	Waste descriptions and/or treatment subcategory	Technology Code Circle One: Wastewaters	Nonwastewaters
X	D001	Table CCWE in 268.41 and Table CCW 268.43	All descriptions based on 40 CFR 261.21, except for the 261.21 (a)(1) High TOC Subcategory, managed in non-CWA/non-CWA-equivalent/ non-Class I SDWA systems.	DEACT, and meet F039; or FSUBS; RORGS; or INCIN	DEACT, and meet F039 or FSUBS; RORGS; or INCIN
___	D001	NA	All descriptions based on 40 CFR 261.21, except for the 261.21 (a)(1) High TOC subcategory, managed in CWA, CWA-equivalent, or Class I SDWA systems.	DEACT	DEACT
___	D001	NA	All descriptions on 40 CFR 261.21 (a) (1) - High TOC Ignitable Liquids Subcategory- Greater than or equal to 10% total organic carbon.	NA	FSUBS; RORGS; or INCIN

II. Are there any F039 Constituents(40 CFR 268.43 CCW, 268.41 CCWE)?
___ Yes X No

If yes, please list all; or circle constituents on Table 2 attachment _____

III. California List Prohibition Levels (40 CFR 268.32)

Does this waste contain any of the following constituents at levels greater than the California List Prohibition levels given below?

YES	NO	Constituents (MUST Check either Yes or No)
___	X	1,000 mg/kg Halogenated Organic Compounds (HOC's listed in 168.32 App. III)
___	X	50 ppm PCB's (liquid wastes)
___	X	134 mg/L Nickel (liquid wastes)
___	X	130 mg/L Thallium (liquid wastes)

IV. Additional Hazardous Characteristics (check one)

X No additional characteristics are exhibited by this waste which would require treatment beyond the standards described above.

___ Treatment standards for the additional Hazardous Characteristics requiring treatment are indicated on the attached page.

V. Certification

All treatment standards and prohibition levels applicable to this waste are indicated above.

Company Name: BASF Wyandotte

Authorized Signature: [signature] Date: 8/27/93

U.S. Department
of Transportation

Research and
Special Programs
Administration

400 Seventh Street, S.W.
Washington, D.C. 20590

DOT-E 8943
(CORRECTED COPY)

1. BASF Wyandotte Corporation, Parsippany, New Jersey, is hereby granted an exemption from those provisions of this Department's Hazardous Materials Regulations specified in paragraph 5 below to offer packages prescribed herein of a flammable solid for transportation in commerce subject to the limitations and special requirements specified herein. This exemption authorizes shipment of a polyol filter cake classed as a flammable solid in a non-DOT specification container and provides no relief from any regulation other than as specifically stated.

2. BASIS. This exemption is based on BASF Wyandotte Corporation's application dated October 21, 1982 submitted in accordance with 49 CFR 107.103 and the public proceeding thereon.

3. HAZARDOUS MATERIALS (Descriptor and class). Polyol filter cake, classed as a flammable solid.

4. PROPER SHIPPING NAME (49 CFR 172.101). Flammable solid, n.o.s.

5. REGULATION AFFECTED. 49 CFR 173.154.

6. MODES OF TRANSPORTATION AUTHORIZED. Motor vehicle.

7. SAFETY CONTROL MEASURES. Packaging prescribed is an open top, metal cargo carrying box of approximately 35,000 pounds loading capacity and lined with 8 mil polyethylene which after completion of loading is folded over the filter cake. The metal box is covered with a tarpaulin. The covered metal box is winched aboard a trailer frame and becomes the truck body. The polyol filter cake must be wetted down with water to cool the temperature below 200°F before shipment.

8. SPECIAL PROVISIONS.

a. The cargo carrying body of the motor vehicle must be plainly marked on the right side, near the front, in letters at least two inches high on a contrasting background, "DOT-E 8943".

b. A copy of this exemption must be carried aboard each motor vehicle used to transport packages covered by this exemption.

9. REPORTING REQUIREMENTS. Any incident involving loss of contents of the package must be reported to the Office of Hazardous Materials Regulation as soon as practicable.

10. EXPIRATION DATE. December 1, 1984.

U.S. Department
of Transportation

Research and
Special Programs
Administration

400 Seventh Street, S.W.
Washington, D.C. 20590

Notice to Exemption Holders

The enclosed exemption has been issued to you (or your company). It is very important that you read and understand all of the terms and conditions of this exemption. Do not assume the exemption authorizes everything that was requested in your exemption application. The exemption provides relief only from the requirements of the Department's Hazardous Materials Regulations (HMR) specifically cited in the exemption. All other applicable requirements of the HMR must be met.

One of the most important provisions in an exemption is its expiration date. Often holders review the expiration date of an exemption upon receipt to determine its duration and fail to check the expiration date thereafter. Consequently, many exemption holders have failed to submit timely renewal applications in conformance with 49 CFR 107.105. Such applications must be submitted at least 60 days prior to their expiration date.

Many holders continue to operate under the terms of exemptions that have expired. This is the same as having no exemption. The responsibility for filing a timely renewal application lies not only with the holder, but with each person who holds the status of a party to an exemption. Therefore, it is important that each holder and each person holding party-to status develop a method to remind themselves to submit a renewal application at least 60 days prior to the expiration date.

Should you have any questions about an exemption, please contact the Exemptions Branch at (202) 366-4535. Be aware that it is your responsibility to understand and comply with the terms and conditions of an exemption. Any person who knowlingly violates the requirements of an exemption shall be liable for a civil penalty of not more than $10,000 for each violation. For 1988, there were 38 enforcement actions against exemption holders, resulting in the payment of penalties in excess of $67,000.

The following is a section dealing with exemptions which has been extracted from the Hazardous Materials Transportation Act. (49 App. U.S.C. Section 1801, et seq.)

EXEMPTIONS

Sec. 107.(a) General.-The Secretary, in accordance with procedures prescribed by regulation, is authorized to issue or renew, to any person subject to the requirements of this title, an exemption from the provisions of this title, if such person transports or causes to be transported or shipped hazardous materials in a manner so as to achieve a level of safety (1) which is equal to or exceeds that level of safety which would be required in the absence of such exemption, or (2) which would be consistent with the public interest and the policy of this title in the event there is no existing level of safety established. The maximum period of an exemption issued or renewed under this section shall not exceed 2 years, but any such exemption may be renewed upon application to the Secretary. Each person applying for such an exemption or renewal shall, upon application, provide a safety analysis as prescribed by the Secretary to justify the grant of such exemption. A notice of an application for issuance or renewal of such exemption shall be published in the Federal Register. The Secretary shall afford access to any such safety analysis and an opportunity for public comment on any such application, except that nothing in this sentence shall be deemed to require the release of any information described by subsection (b) of section 552 of title 5, United States Code, or which is otherwise protected by law from disclosure to the public. (emphasis added).

Exemptions and Approvals Division
Office of Hazardous Materials
Transportation

93 [illegible] P3 [illegible]

DNR

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

WAREHOUSE

DO NOT WRITE IN THIS SPACE

ATT. ☐ DIS. ☐ REJ. ☐ PR. ☐

1979, as amended and Act 136, P.A. 1969.

Failure to file is punishable under section 299.548 MCL or Section 10 of Act 136, P.A. 1969.

Please print or type

Form Approved. OMB No. 2050-0039 Expires 9-30-92

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. MID064197742 — Manifest Document No. 12481

2. Page 1 of — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
BASF CORPORATION
1609 BIDDLE AVENUE
WYANDOTTE, MI 48192

4. Generator's Phone (313) 246-6836

A. State Manifest Document Number: MI 2680331

B. State Generator's ID:

5. Transporter 1 Company Name: DETREX CORPORATION

6. US EPA ID Number: MID091605972

C. State Transporter's ID:

D. Transporter's Phone: 313/491-4550

7. Transporter 2 Company Name: [illegible]

8. US EPA ID Number: [illegible]

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address
PETRO-CHEM PROCESSING
515 LYCASTE
DETROIT, MI 48214

10. US EPA ID Number: MID980615298

G. State Facility's ID:

H. Facility's Phone: 313/824-5835

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER). HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.	N/H
a. X HAZARDOUS WASTE LIQUID, NOS ORM-E, NA9189 (CONTAINS METHYLENE CHLORIDE)	016	DM	00245	G	F002	H
b. X RQ WASTE FLAMMABLE LIQUID, NOS, UN1993 (ACRYLONITRILE, OIL, STYRENE) (D001, D018)	007	DM	00105	G	D001	H
c. X RQ HAZARDOUS WASTE LIQUID, NOS, ORM-E, NA9189 (D001)	004	DM	00330	G	D001	H
d. X RQ WASTE FLAMMABLE LIQUID, NOS, UN1993 (CONTAINS ACETONE, METHANOL, TOLUENE) (D001, D009, F003, F005)	002	DM	00010	G	D001	H

J. Additional Descriptions for Materials Listed Above
A. ERG31, W001, W28918 B. D018, ERG27, W010, W34049
C. ERG31, W035, W34863 D. D009, F003, F005, ERG27, W063, W28913

NOTIFY GENERATOR IF UNDELIVERABLE.

K. Handling Codes for Wastes Listed Above
a/ 2
b/
c/
d/

15. Special Handling Instructions and Additional Information
IN CASE OF SPILL, DAY OR NIGHT, NOTIFY CHEMTREC, 24 HOURS AT 1-800-424-9300.

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR; if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name: ADAM C. BICKEL — Signature: [signature] — Date: Month Day Year 07 27 93

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible] — Signature: [signature] — Date: Month Day Year [illegible]

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible] — Signature: [signature] — Date: Month Day Year [illegible]

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: [illegible] — Signature: [signature] — Date: Month Day Year [illegible]

ALL SPILLS MUST BE REPORTED TO THE MICHIGAN POLLUTION EMERGENCY ALERTING SYSTEM. IN MICHIGAN AT 1-800-292-4706 OR OUT OF STATE AT 517-373-7660 AND THE NATIONAL RESPONSE CENTER AT 1-800-424-8802 24 HOURS PER DAY.

EPA Form 8700-22 (Rev. 9/88) GENERATOR 2nd COPY PR 5110 Rev. 10/91

Generator Land Disposal Restriction Notification for
Hazardous Wastes Subject to an Effective Prohibition Date

Generator Name: BASF Corporation EPA ID No. MIDO64197742

Address: 1609 Biddle Contact (Print) Adam Bickel

Wyandotte MI 48192

Signature: Adam Bickel Date: 7/27/93

The hazardous wastes identified on the accompanying manifest number 12481 and bearing the EPA Hazardous Waste Codes listed below are restricted wastes which are prohibited from land disposal under the Land Disposal Restrictions, 40 CFR Part 268. In accordance with 40 CFR 268.7(a)(1), the EPA waste code, waste subcategory, treatability groups, treatment standards, technology codes, and appropriate references, as applicable, are provided below:

I. Characteristic Wastes D001 through D017

Waste Code/Subcategory	Numerical Treatment Standard, Technology Code and/or Reference	
	Wastewater	Nonwastewater
[X] D001		
[ ] Ignitable Liquid Wastewaters	[ ] Ref 2 -- DEACT	NA
[ ] Ignitable Liquids < 10% TOC	NA	[ ] Ref 2 -- DEACT
[X] Ignitable Liquids > or = 10% TOC	NA	[X] Ref 2 -- FSUBS; RORGS; or INCIN
[ ] Ignitable Compressed Gas	NA	[ ] Ref 2 -- DEACT
[ ] Ignitable Reactives	NA	[ ] Ref 2 -- DEACT
[ ] Oxidizers	[ ] Ref 2 -- DEACT	[ ] Ref 2 -- DEACT
[ ] D002		
[ ] Acid, pH < or = 2.0	[ ] Ref 2 -- DEACT	[ ] Ref 2 -- DEACT
[ ] Alkaline, pH > or = 12.5	[ ] Ref 2 -- DEACT	[ ] Ref 2 -- DEACT
[ ] Other (per '261.22(a)(2))	[ ] Ref 2 -- DEACT	[ ] Ref 2 -- DEACT
[ ] D003		
[ ] Reactive Sulfides	[ ] Ref 2 -- DEACT	[ ] Ref 2 -- DEACT
[ ] Reactive Cyanides	[ ] Ref 3	[ ] Ref 3
[ ] Explosives	[ ] Ref 2 -- DEACT	[ ] Ref 2 -- DEACT
[ ] Water Reactives	NA	[ ] Ref 2 -- DEACT
[ ] Other (per '261.23(a)(1))	[ ] Ref 2 -- DEACT	[ ] Ref 2 -- DEACT
[ ] D004 - Arsenic	[ ] Ref 3	[ ] Ref 1
[ ] D005 - Barium	[ ] Ref 3	[ ] Ref 1
[ ] D006		
[ ] Cadmium	[ ] Ref 3	[ ] Ref 1
[ ] Cadmium Containing Batteries	NA	[ ] Ref 2 -- RTHRM
[ ] D007 - Chromium	[ ] Ref 3	[ ] Ref 1
[ ] D008		
[ ] Lead	[ ] Ref 3	[ ] Ref 1
[ ] Lead Acid Batteries	NA	[ ] Ref 2 -- RLEAD
[X] D009 - Mercury		
[X] Low Hg, < 260 mg/kg Hg	[ ] Ref 3	[X] Ref 1
[ ] High Hg, > or = 260 mg/kg Hg, mercury and organics and are not incinerator residues	NA	[ ] Ref 2 -- IMERC; or RMERC
[ ] High Hg, > or = 260 mg/kg Hg, inorganics including incinerator & RMERC residues	NA	[ ] Ref 2 -- RMERC
[ ] D010 - Selenium	[ ] Ref 3	[ ] Ref 1
[ ] D011 - Silver	[ ] Ref 3	[ ] Ref 1
[ ] D012 - Endrin	[ ] Ref 2 -- BIODG; or INCIN	[ ] Ref 3
[ ] D013 - Lindane	[ ] Ref 2 -- CARBN; or INCIN	[ ] Ref 3
[ ] D014 - Methoxychlor	[ ] Ref 2 -- WETOX; or INCIN	[ ] Ref 3
[ ] D015 - Toxaphene	[ ] Ref 2 -- BIODG; or INCIN	[ ] Ref 3
[ ] D016 - 2,4-D	[ ] Ref 2 -- CHOXD; BIODG; or INCIN	[ ] Ref 3
[ ] D017 - 2,4,5-TP (Silvex)	[ ] Ref 2 -- CHOXD; or INCIN	[ ] Ref 3

References
Ref 1: See numerical treatment standard(s) in 40 CFR 268.41, Table CCWE - Constituent Concentrations in Waste Extract
Ref 2: See technology-based standard(s) in 40 CFR 268.42, Table 2 - Technology-Based Standard By RCRA Waste Codes
Ref 3: See numerical treatment standard(s), 40 CFR 268.43, Table CCW - Constituent Concentrations in Waste

[X] CHECK HERE IF SPENT SOLVENT, CALIFORNIA LIST, OR F-, K-, P-, OR U-CODE WASTE. IF CHECKED, COMPLETE PAGE 2.

ATTACHMENT 3

Toluene Remediation Project

Overview

Project Description

Conduct studies and gather information necessary to define the scope of and provide a design basis for in-situ remediation of toluene migration into the stormwater run-off and entering NPDES Outfall 001.

Project Background

In early 1990, three toluene limit exceedances at Outfall 001 were caused by contaminated stormwater run-off. Investigation identified the source of the toluene in the shallow soils around the Polymers Plant. To temporarily alleviate this problem, the wastewater system was modified to segregate and treat by carbon adsorption the contaminated stormwater. The MDNR has expressed concern regarding the adequacy of the current system in two recent letters.

Project Elements

Investigation

Determine the nature, extent, direction, rate, movement and concentration of toluene and styrene in the subsurface area around the Polymers Plant and conduct necessary tests or studies to determine the feasibility of remedial technologies.

The subsurface investigation includes the following tasks: 1) soil borings, soil sampling, water sampling; 2) engineering samples; 3) well installation; 4) monitoring well sampling and groundwater analysis; 5) hydrogeologic study; and 6) data compilation and investigative report.

Remedial Design

The design basis will include the following: 1) assessment of the effectiveness of potential remedies; 2) evaluation of performance, reliability, ease of implementation and potential impacts of the recommended remedy; 3) assessment of the time and cost; and 4) assessment of regulatory requirements.

The conceptual remedial system designs will evaluate three technologies: 1) biremediation; 2) soil vapor extraction; and 3) air sparging.

Consultant

Groundwater Technology, Inc. was selected as the contractor. A Purchase Order was issued on March 30, 1992 for $125,859. A project kickoff meeting was conducted on March 31, 1992.

Costs

The appropriated total project cost is $200,000. The cost includes contractor services, analytical work, and a 20% contingency.

To date $76K has been invoiced from Groundwater Technology, Inc. (which is 60% of the $126K P.O.) and $42K has been invoiced for the water line repair (which is 105% of the contingency).

ATTACHMENT 4

Interoffice

BASF

Date	November 25, 1991
To	J. Schweickart
From	A. Bickel X6836
Subject	Polyol Pond Regulatory Status
Copies	DFigg, KGranata, PGreer, CHanson, CLaScola, TLynch, DThiel

A meeting was held at the Polyol Plant on September 10, 1991 to discuss the regulatory status of the wastewater ponds. In response to this meeting, the following information was compiled to outline the regulatory status of the Polyol Ponds.

SUMMARY

After review of the Polyol Plant processes and applicable regulations it has been determined the Polyol Ponds do not receive hazardous wastewaters and are therefore not subject to the RCRA and Act 64 waste management regulations. But if the Ponds were to receive hazardous wastewaters they would be subject to the RCRA and Act 64 standards for surface impoundments requiring a Part B permit.

REGULATORY BACKGROUND

The RCRA and Act 64 waste management regulations provide for specific exemptions for wastewater which contain hazardous waste. These exemptions include industrial wastewater discharges subject to the National Pollution Discharge Elimination System (NPDES) requirements under the Clean Water Act per 40 CFR 261.4(a)(2) and wastewater treatment units per 40 CFR 264.1(g)(6).

NPDES

The first exemption applies to NPDES industrial wastewater discharges. The definition of discharge under the CWA per 40 CFR 122.2 as "any addition of any 'pollutant' or combination of pollutants to 'waters of the United States' from any 'point source'". Waters of the United States are defined as "including all waters which are subject to the ebb and flow of the tide, interstate waters, wetlands, lakes, rivers, streams...". The definition specifically excludes ponds or lagoons used for treatment and manmade bodies of water. Therefore, a surface impoundment would not be covered under the NPDES system and, if receiving hazardous wastewaters, would be subject to the requirements for a surface impoundment.

WASTEWATER TREATMENT UNIT

The second exemption is based on a wastewater treatment unit meeting all of the following conditions: 1) is subject to regulation under either section 402 (NPDES) or 307(b) (POTW) of the CWA; 2) meets the definition of a tank per 40 CFR 260.10; 3) receives and treats or stores influent hazardous waste as defined in 40 CFR 261.3. This exemption would not

apply because the Polyol Ponds do not meet the definition of a tank. A tank is defined per 260.10 as meaning a stationary device, designed to contain an accumulation of hazardous waste which is constructed primarily of non-earthen materials (e.g. wood, concrete, steel, plastic) which provide structural support. In the Koppers Company, Inc. decision the EPA requires the unit to pass the so-called "foundation test:"

> In the foundation test, the unit is theoretically placed on a solid foundation and filled to capacity. All lateral support from surrounding soil is removed. If the unit can maintain structural integrity under those conditions, it passes the test.

REVIEW OF POTENTIAL SOURCES

Based on the Polyol Ponds failing to meet the two exemptions, stated in the previous section, it was necessary to review all existing operations that contribute wastewater to the Ponds to ensure that hazardous wastewaters were not being discharged. If the Ponds were to receive hazardous wastewaters they would be subject to the RCRA and Act 64 standards for surface impoundments.

POLYOL PLANT

A review of the process and maintenance areas did not indicate any hazardous waste or hazardous wastewater sources entering the Polyol Ponds. However, the potential for de minimis losses from commercial chemical products in the process and maintenance areas does exist. These de minimis losses are exempt provided they are discharged with wastewater subject to an NPDES or POTW permit and meet the conditions of 40 CFR 261.3(a)(2)(iv)(D), which states:

> A discarded commercial chemical product, or chemical intermediate listed in 40 CFR 261.33, arising from de minimis losses of these materials from manufacturing operations in which these materials are used as raw materials or are produced in the manufacturing process. For purposes of this subparagraph, " de minimis " losses include those from normal material handling operations (e.g. spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves or other devices used to transfer materials); minor leaks of process equipment, storage tanks or containers; leaks from well-maintained pump packings and seals; sample purgings; relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; and rinsate from empty containers or from containers that are rendered empty by that rinsing.

The definition of commercial chemical product (i.e. P and U listed hazardous waste) would include acrylonitrile, ethylene oxide, styrene (Act 64), toulenediamine, and toluene diisocyanate.

The only other potential source of hazardous wastewaters would be the decanted water from the Polyol Filter Cake which has the ability to exceed a pH of 12.5. However, the pH of the water is adjusted in the lift station which meets the definition of a tank and is therefore exempt.

POLYOL QA

The waste management and wastewater practices of the Polyol QA Laboratory have been reviewed. The piping for the Lab is thought to be connected to the Polyol Ponds. An RES is currently being completed to verify the sewer routing for the Lab.

Various waste streams are generated and containerized for off-site treatment and disposal. Small quantities of acetone, methanol, and isopropanol are discharged as wastewater from secondary cleaning of glassware and instrumentation. Although these small quantities of solvents are not considered hazardous wastewaters based on the discussion below.

An exemption is provided under 40 CFR 261.3 (a)(2)(iv)(E) for wastewaters resulting from laboratory operations which states:

> Wastewater resulting from laboratory operations containing toxic (T) wastes listed in Subpart D, Provided, That the annualized average flow of laboratory wastewater does not exceed one percent of total wastewater flow into the headworks of the facility's wastewater treatment or pre-treatment system, or provided the wastes, combined annualized average concentration does not exceed one part per million in the headworks of the facility's wastewater treatment or pre-treatment facility. Toxic (T) wastes used in laboratories that are demonstrated not to be discharged to wastewater are not to be included in this calculation.

The Polyol QA Labs wastewater discharge meets this exemption based on the fact that the small volume of solvents discharged are toxic wastes listed in Subpart D of 40 CFR 261 and the average flow of laboratory wastewater is less than one percent of the dirty water flow into the Ponds.

STEAM FACILITY

The Steam Facility wastewater is discharged to the Polyol Pond and Outfall 001. The pH of the Steam Facility wastewater may be acidic or basic due to the addition of sulfuric acid and sodium hydroxide, which are used for demineralization. The Steam Facility performs pH adjustment of their wastewater with final pH adjustments made at the Polyol Pond dirty lift station. This activity is exempt because the lift station meets the definition of a tank.

OTHER

A Cyclezorb carbon unit is currently being used to remove the toluene from the surface water along the south west side of the Polyol Plant. The toluene was used until mid-1979 as a solvent for liquid/liquid extraction of catalyst in the Polyol manufacturing process. Because the toluene was used for its solvent properties, it is considered a listed (F005) hazardous waste; therefore, the toluene and water are considered a listed hazardous waste based on the EPA's "contained-in" policy.

The carbon unit is being used for compliance with a NPDES permit and meets the exemption criteria per 40 CFR 264.1(g)(6). The NPDES permit for the Polyol Plant is non-specific in nature with regards to identifying wastewater equipment. Although the carbon unit is not specifically addressed in the NPDES permit it has been inspected by the MDNR, Surface Water Division and acknowledged as part of the Polyol Plant NPDES system.

An additional point to clarify is when the toluene contaminated water, entering or exiting the carbon unit, is considered a hazardous waste. The EPA addressed the question, when does environmental media contaminated by listed hazardous waste cease to be a listed hazardous waste, as follows:

- only as long as it "contains" a listed hazardous waste (until decontaminated); or
- when the listed waste is completely removed by treatment; or
- when present at de minimis levels.

With regards to the third item, the Federal EPA has not defined the de minimis criteria. Until such time, an EPA Region or an authorized State (i.e. Michigan) may make this determination. Kim Paksi of the MDNR, Waste Management Division, Waste Characterization Unit, indicated that the MDNR recognizes the Act 307 clean up standards as the de minimis level for environmental media contaminated with listed hazardous waste. The clean up standard for toluene is 100 ppb for surface water.

This means that surface water entering or existing the carbon bed with a toluene concentration less than 100 ppb is nonhazardous. It is my understanding that a bimonthly monitoring program has been initiated to prevent break through of the carbon bed. This monitoring program will also be necessary to ensure that carbon bed effluent concentrations are maintained below the 100 ppb limit. If carbon bed effluent were discharged to the Polyol Ponds, with toluene concentrations exceeding 100 ppb, the Ponds would be subject to the waste management standards for surface impoundments.

CONCLUSION

After review of the Polyol Plant processes and applicable regulations it has been determined the Polyol Ponds do not receive hazardous wastewaters and are therefore not subject to the RCRA and Act 64 waste management regulations. But if the Ponds were to receive hazardous wastewaters they would be subject to the RCRA and Act 64 standards for surface impoundments requiring a Part B permit. Therefore, it is imperative that we prevent the entry of potential hazardous wastewater sources into the Polyol Pond system.

This can only be accomplished by:

- establishing a monitoring program for the carbon bed,
- continually reviewing existing processes, and
- reviewing new projects or process modifications that may adversely affect wastewater streams to the ponds.

If you have any questions or if I can be of further assistance, please call me.

A. C. Bickel

acb

UST

Observations

1. Are there any underground storage tanks? NO- According to BAST

2. Approximately how many? What are the contents? (Wastes, virgin petroleum, or chemicals)

3. What type of leak detection is used? When was it last used?

4. Is there any evidence of leaks, spills, broken piping, broken fill/vent lines, or leaking pumps joints or valves? Provide location and description.

Interview Questions/Records Review

1. If the tanks are virgin petroleum or chemicals (not wastes) are they registered with the state? Date of registration? Date of tank(s) installation?

SPCC

Observations

1. Does the facility have the capacity to store oil either in above or below ground tanks? How many gallons? Does any tank have a capacity of more than 660 gallons in a single tank or does the facility have a capacity f more than 1320 gallons in a number of tanks or a capacity of more than 42,000 gallons below the ground?

YES
- 150,000 gal #6 fuel oil back-up to steam boiler
- 3000 gal fuel oil
- 550 gal lube oil
- MISC drums gasoline tanks

2. What type of secondary containment is used at the facility? Were there any deficiencies in the secondary containment (cracks, broken, dikes left open)? Is it adequate to contain the entire contents of the largest tank?

DIKES

3. Is the Worst Case Contingency Requirement of the Oil Pollution Act of 1990 applicable for this facility? If so, has the facility developed and submitted a plan?

NO

Interview Questions/Records Reviews

1. Does the facility have a certified (signed by a P.E. plan? When was it last updated?

SPCC PLAN WAS NOT CERTIFIED BY P.E. LAST REVISED TO March, 1991

2. Has there been any major changes to oil storage at the facility since the last modification of the plan?

SPCC PLAN SHOULD BE REVISED TO REFLECT CURRENT TANKAGE VOLUMES

WETLANDS

Observations

1. Are there any wet areas near the facility with wetland-type vegetation (cattails, rushes, sedges) that have been disturbed by waste disposal, ditching, or filling?
Not observed in areas visited during walk-thru

Interview Questions/Record Reviews

1. Does the facility have a federal section 404 permit or any state or local permit authorizing the fill?
N/A

FIFRA

Observations

1. Does the facility produce pesticides? (1)
2. Is the facility applying pesticides? NO- has contract exterminator [Terminix]
3. Where are the pesticides stores?

Interview Questions/Records Review

1. If the facility produces pesticides, what is the establishment's registration number? _____
2. If the facility is applying pesticides, what is the registration number of the pesticide? _____

(1) According to BASF, they manufacture 'PIX' (trade name), whose active ingredient is 1,1-dimethyl piperidium chloride, at a 60% concentration for usage as an intermediate in other BASF plants where it is formulated into lesser concentrations for marketing.

AIR

Observations

1. Is there any asbestos on site? YES

2. Is the facility undergoing or has the facility undergone any renovations or demolitions during the last 18 months, which involve the removal or disturbance of asbestos-containing materials? Approximately how much asbestos (square feet or linear feet) was removed?
BASF has had two removals in 1993 (2)

3. Does the facility have any coating or printing operations? Does the facility use any paints or organic solvents? What, if any, type of air pollution control is used? Was it operating?
Small scale painting done in Research & Development spray booth. Spray booth equipped with filters

4. Were there any odors? What process was the source of the odors? Describe the odors.
None encountered during site walk thru. (1)

5. Were there any visible (opaque smoke) emissions? What process was the source? Were there any fugitive (not from a stack) emissions? Was the air pollution control equipment, if any, operating? Describe source.
No

6. Were all continuous emission monitors operating? Itemize all monitors at the site, including the type(s) (e.g., opacity, SO_2).

7. Were there any out-of-ordinary operating practices or procedures, or occurrences during the inspection? (This information should be supplied separately to the specific program office).
No.

Interview Questions/Records Reviews

1. If asbestos was removed, was notification provided to the State and EPA? Yes - by Contractors (2)

2. If the facility has coating or printing operations, are they water based or organic solvent based?
Both; solvent primarily (90% solvent 10% water based) 95% of coating is paints, 5% is powder coatings

3. Does the facility handle/emit any of the National Emission Standards for Hazardous Air Pollutants (NESHAP) chemicals other than asbestos (mercury, beryllium, vinyl chloride, benzene, arsenic, radionuclides)? Describe process.
BENZENE (3)

4. Has the facility added new or expanded existing processes in the last two years? Was it permitted by EPA or the State?
Yes / Yes

NOTES

(1) HAVE INSTALLED SCRUBBERS IN VITAMINS COMPLEX - HAVE HAD HISTORICAL CITIZEN COMPLAINTS (LAST COMPLAINT in April)

(2) BASF HAS BEEN NOTIFYING NRC, SERC, LEPC ON OFF-SITE TRANSFERS OF ASBESTOS. According to BASF, this activity is subject to release reporting since off-site disposal facility doesn't have federal permits. Refer to Attachment 5 for copies of CERCLA/EPCRA Notices.

(3) Initial notification under Benzene Waste Operations NESHAP was in May, 1993 (Refer to Attachment 6).

(4) Refer to Attachment 7 for listing of air permit information

ATTACHMENT 5

BASF Corporation

BASF

CERTIFIED MAIL - RETURN RECEIPT REQUESTED
SERC: P 121 664 506
LEPC: P 121 664 507

September 20, 1993

Mr. Kent Kanagy
Michigan Department of Natural Resources
State Emergency Response Commission
P.O. Box 30028
Lansing, MI 48909

Mr. Mark R. Sparks
Acting LEPC Chairperson
Title III Local Emergency Planning Committee
10250 Middlebelt Road
Detroit, MI 48242

Dear Sirs:

On September 14, 1993 the BASF Corporation facility at Wyandotte, Michigan experienced a release of a hazardous substance requiring notification under CERCLA 103 and EPCRA 304. Verbal notification was provided to the NRC, SERC, and the LEPC on September 15, 1993. The NRC Case Number is 197864. Pursuant to 40 CFR 355.40(b)(3), this submittal constitutes the written, follow-up notification.

This release is a result of the routine, ongoing removal of asbestos from the facility. The off-site transfer of asbestos has been conducted in compliance with all applicable rules and standards. This activity is subject to release reporting since the off-site disposal facility does not have a federal permit in place. BASF does not have a sufficient basis for establishing this release as continuous and stable, so we intend to report it on a per-occurrence basis.

Chemical Name/CAS Number: Asbestos/1332-21-4

Quantity Released: 20 pounds (friable)

Approximate Time of Release: 4:30 pm on September 14, 1993

Removal Contractor: Thermico Inc.
38281 Schoolcraft Road, Suite G
Livonia, MI 48150

Disposal Facility: BFI Arbor Hills Landfill
10690 West Six Mile Road
Northville, MI 48167

Cause of Releases: Pipe insulation removal at Polyol Plant.

All other details required by 40 CFR 355.40(b)(3) are not applicable to this notification. There are no health risks, medical attention is not required, and no environmental media is affected. Furthermore, neither corrective action nor preventive measures will take place since removal projects are an ongoing activity at the facility, off-site transfers are an inherent aspect of these projects, and this activity will be conducted in compliance with the rules.

If you are in need of any additional information, please call me at (313) 246-6429.

Sincerely,

Karen LeMieux

Karen A. LeMieux
Ecology Services Engineer

bc: Armand Boisvenue
RFColonnese
GTDurst
RMRosen

File: 1993 Chemical Release Report
Circ: CDL, DPT, KAL-last

INTERNAL NOTIFICATION OF ASBESTOS RELEASE

Important: this form must be completed by responsible individual and received by Site Ecology Services Department within 9 days of external verbal notification.

Description of Project: EPO STEAM TIE IN

Date of external verbal notification: ~~9-14-93~~ 9/15/93 NAR

Disposal Facility Name: BFI

Address: 10690 W. 6 MILE ROAD
NORTHVILLE, MI 48167

Contact and phone number: 313-349-7230

Date of Shipment	Approx. Time of Shipment	Quantity of Asbestos Shipped (lbs)	Transporter
9-14-93	4:30 pm	20165	THERMICO INC.

Will there be additional reports to document the continuation of asbestos releases from this removal project?

Yes ☐
No ☒

This form has been completed by:

Name: ARMAND BOISVENUE
Company: BASF CORPORATION
Address: 1609 BIDDLE WYANDOTTE, MI, 48192
Phone Number: 313-246-6780

Send completed form to:

Charlie Anderson
Ecology Services Department
BASF Corporation
1609 Biddle Ave.
Wyandotte, MI 48190
(313)246-5131

MICHIGAN DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION

PR 5601
(rev 2/91)

WASTE SHIPMENT RECORD

BFI # 180537

GENERATOR

1. Work site name and mailing address	Owner's name	Owner's phone #
BASF Corporation 1609 Biddle Avenue Wyandotte, MI 48192	Same Owner's contact: Armand Boisvenue	313-246-6780

2. Operator's name and address: THERMICO, INC.
38281 Schoolcraft Suite G
Livonia, Michigan 48150
Operator phone # 591-5930

3. Waste disposal site (WDS) name, mailing address, and physical site location:
BFI 10690 W. 6 Mile Rd. Northville, MI 48617
WDS phone # (313)-349-7230

4. Name and Address of responsible agency:
AIR QUALITY DIVISION, MICHIGAN DEPARTMENT OF NATURAL RESOURCES
P.O. BOX 30028
LANSING, MI 48909

5. Description of materials	6. Containers No.	type	7. total quantity M3	(yds)
Friable Asbestos Pipe Covering	6			

8. Special handling instructions and additional information

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Print/type name & title	Signature	Month Day Year
ADAM WERLE/SUPERVISOR	Adam Werle	09 14 93

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title:	Signature	Month Day Year
Thermico Inc./		

Address & telephone number:
38281 Schoolcraft Rd. Sw. G Livonia, MI 48150 (313) 591-5930

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address:
Phone:

DISPOSAL

12. Discrepancy indication space:

13. Waste disposal site owner or operator:
Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month Day Year

BFI®

NON-HAZARDOUS SPECIAL WASTE & ASBESTOS MANIFEST

If waste is asbestos waste, complete Sections I, II, III and IV.
If waste is NOT asbestos waste, complete only Sections I, II and III.

No. 180537

Section I. GENERATOR (Generator completes all of Section I)

a. Generator Name: BASF Corp.
b. Generating Location:
c. Address: 1609 Biddle Ave. Wyandotte, MI. 48192
d. Address:
e. Phone No.: (313) 246-6780
f. Phone No.:

If owner of the generating facility differs from the generator, provide:

g. Owner's Name:
h. Owner's Phone No.:

i. BFI WASTE CODE: EXEMPT — Containers

j. Description of Waste: [illegible] Asbestos [illegible]

k. Quantity: 00001 — Units: Y — No.: 04 — TYPE: [illegible]

TYPE	
DM	METAL DRUM
DP	PLASTIC DRUM
B	BAG
BA	6 MIL. PLASTIC BAG or WRAP
T	TRUCK
O	OTHER

UNITS	
P	POUNDS
Y	YARDS
M^3	CUBIC METERS
Y^3	CUBIC YARDS
O	OTHER

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name: Armand [illegible] — Signature: [signature] — Shipment Date:

Section II TRANSPORTER (Generator complete a-d; Transporter I complete e-g, Transporter II complete h-n)

TRANSPORTER I

a. Name: Thermico Inc.
b. Address: 38281 Schoolcraft Rd. Suite G, Livonia, MI. 48150
c. Driver Name/Title: (PRINT/TYPE)
d. Phone No.: (313) 591-5930
e. Truck No.: 37
f. Vehicle License No./State: TC 6497 MI.

Acknowledgement of Receipt of Materials.

g. Driver Signature — Shipment Date

TRANSPORTER II

h. Name:
i. Address:
j. Driver Name/Title: (PRINT/TYPE)
k. Phone No.:
l. Truck No.:
m. Vehicle License No./State:

Acknowledgement of Receipt of Materials.

n. Driver Signature — Shipment Date

Section III DESTINATION (Generator completes a-d, destination site completes e-f.)

a. Site Name: BFI
b. Physical Address: 10690 W. Six Mile Rd. Northville, MI. 48167
c. Phone No.: (313) 349-7230
d. Mailing Address:
e. Discrepancy Indication Space:

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

f. Name of Authorized Agent — Signature — Receipt Date

Section IV ASBESTOS (Generator complete a-d, f, g, Operator* completes e.)

a. Operator's* Name: Thermico Inc.
b. Operator's* Phone No.: (313) 591-5930
c. Operator's* Address: 38281 Schoolcraft Rd. [illegible] G Livonia, MI. 48150
d. Special Handling Instructions and additional information:

OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described ...

Release Reporting – Initial Telephone Notification

No.

Facility Information

Facility Name:	BASF Corporation
Facility Emergency Contact:	Karen LeMieux
Telephone Number:	313-246-6429
Facility Address Location:	1609 Biddle Avenue
City/Community:	Wyandotte, MI
County:	Wayne
ZIP:	48192-3799

Release Information

Chemical Name/Identity:	Asbestos 1332-21-4		
Is the chemical an EHS?	Y	(N)	Transported 9/14/93 @ 4:30 RORA Licensed.
Chemical Name/Identity:			
Is the chemical an EHS?	Y	N	
Chemical Name/Identity:			
Is the chemical an EHS?	Y	N	

Notification Information

NRC Assigned Case Number:	197864	
Agency Contacted:	National Response Center	
Contact Name:	Petty Officer Mauldin	
Telephone Number:	(800) 424-8802	
Date:	9/15/93	3:55 pm
Agency Contacted:	Mich. DNR ~~Pollution Emergency Alert~~ SYS	
Contact Name:	Ray Spaulding Livonia Lft msg 9	5 @ 4:00 PM
Telephone Number:	~~[redacted]~~ 953 0241	
Date:	9/15	
Agency Contacted:	Wayne County Emergency Mgmt. Div	
Contact Name:	Jeanine	
Telephone Number:	942-5289	
Date:	9/15	(Class I)

Form CRITN-A

BASF Corporation

BASF

CERTIFIED MAIL - RETURN RECEIPT REQUESTED
SERC: P 092 301 411
LEPC: P 092 301 412

May 21, 1993

Mr. Kent Kanagy
Michigan Department of Natural Resources
State Emergency Response Commission
P.O. Box 30028
Lansing, MI 48909

Mr. Mark R. Sparks
Acting LEPC Chairperson
Title III Local Emergency Planning Committee
10250 Middlebelt Road
Detroit, MI 48242

Dear Sirs:

On May 14, 1993 the BASF Corporation facility at Wyandotte, Michigan experienced a release of a hazardous substance requiring notification under CERCLA 103 and EPCRA 304. Verbal notification was provided to the NRC, SERC, and the LEPC on May 14, 1993. The NRC Case Number is 173670. Pursuant to 40 CFR 355.40(b)(3), this submittal constitutes the written, follow-up notification.

This release is a result of the routine, ongoing removal of asbestos from the facility. The off-site transfer of asbestos has been conducted in compliance with all applicable rules and standards. This activity is subject to release reporting since the off-site disposal facility does not have a federal permit in place. BASF does not have a sufficient basis for establishing this release as continuous and stable, so we intend to report it on a per-occurrence basis.

Chemical Name/CAS Number: Asbestos/1332-21-4

Quantity Released: 15 pounds (friable)

Approximate Time of Release: 12:00 noon on May 14, 1993

Removal Contractor: Thermico Inc.
38281 Schoolcraft Road, Suite G
Livonia, MI 48150

Disposal Facility: BFI Arbor Hills Landfill
10690 West Six Mile Road
Northville, MI 48167

Cause of Releases: Pipe insulation removal at Polyol Plant unloading rack.

INTERNAL NOTIFICATION OF ASBESTOS RELEASE

Important: this form must be completed by responsible individual and received by Site Ecology Services Department within 9 days of external verbal notification.

Description of Project: RE-ROUTE 8B PIG LINE IN 38B

Date of external verbal notification: 5-14-93

Disposal Facility
Name: BFI ARBOR HILLS LANDFILL
Address: 10690 W. 6 MILE RD
NORTHVILLE, MI 48617
Contact and phone number: (313) 349-7230

Date of Shipment	Approx. Time of Shipment	Quantity of Asbestos Shipped (lbs)	Transporter
5-14-93	12:00 NOON	30 lbs (TOT)	THERMICO
		15 lbs (FRIABLE)	

Will there be additional reports to document the continuation of asbestos releases from this removal project?

Yes ☐
No ☒

This form has been completed by:

Name: CARLTON E. LOCKLEY
Company: BASF CORPORATION
Address: 1609 BIDDLE AVE.
Phone Number: 246-5017

Send completed form to:

Karen A. LeMieux
Ecology Services Department
BASF Corporation
1609 Biddle Ave.
Wyandotte, MI 48192-3799
(313) 246-6429

Asbestos Release Reporting - Initial Telephone Notification

No.

Facility Information

Facility Name:	BASF Corporation
Facility Emergency Contact:	~~Karen Lemieux~~
Telephone Number:	313-246-6429
Facility Address Location:	1609 Biddle Avenue
City/Community:	Wyandotte, MI
County:	Wayne
ZIP:	48192-3799

Release Information

Chemical Name/Identity:	Asbestos	1332-21-4	
Is the chemical an EHS?	Y	(N)	
Chemical Name/Identity:			
Is the chemical an EHS?	Y	N	
Chemical Name/Identity:			
Is the chemical an EHS?	Y	N	

Notification Information

NRC Assigned Case Number:	173670
Agency Contacted:	National Response Center
Contact Name:	Petty Officer Beshoar
Telephone Number:	(800) 424-8802
Date:	5/14/93 12:25pm
Agency Contacted:	Mich. DNR Pollution Emergency Alert Sys
Contact Name:	5/14 Left message with Air Division
Telephone Number:	800-292-4706 Referred to 953-0241 (Liv office)
Date:	313 953-0241 5/14/93 12:40
Agency Contacted:	Wayne County Emergency Mgmt. Div
Contact Name:	Denise
Telephone Number:	942-5259
Date:	5/14/93 12:40

Form CRITN-A

ATTACHMENT 6

BASF Corporation

BASF

Certified Mail -
Return Receipt Requested
P 092 301 409

May 24, 1993

Regional Administrator
US EPA, Region V
230 South Dearborn Street
Chicago, Illinois 60604

SUBJECT: Initial Notification under Benzene Waste Operations NESHAP

Dear Sir/Madame:

This is to fulfill the initial notification requirement for BASF Corporation's Wyandotte, Michigan site, required under the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Benzene Waste Operations promulgated with clarifying amendments on January 7, 1993 (58 FR 3071) and the NESHAP source reporting requirements under 40 CFR 61.10.

We have reviewed the composition of each waste stream generated by the Wyandotte Site and have identified one source that is regulated under the NESHAP.

FACILITY

BASF Corporation
1609 Biddle Avenue
Wyandotte, Michigan 48192-3799

LOCATION

Benzene is used in laboratories located in the two research buildings, Central R&D and Chemical Engineering. The wastes are collected at the point of generation in 1 - 5 gallon containers. Other waste solvents are collected in this waste stream as well. The contents of the small containers are transferred to a 55 gallon drum located in the R & D waste accumulation area. The full drums are sent to the site's Central Waste Accumulation Storage Area (CWASA) for transport to an approved disposal facility. See attached site map for locations.

OPERATION

Benzene is used in various capacities in the research labs: as an analytical standard; as a solvent in process development; in organic synthesis; etc. All waste benzene from research activities are collected as BASF internal waste steam code W105. This waste stream has been characterized as containing 0-1% benzene and 0-10% water. The exact benzene content cannot be determined as the high and varied solvent content of the waste interferes with the ability to identify and quantify individual components.

BENZENE - MONTHLY AVERAGE

The site generated 7,400 pounds of waste stream W105 in the last 12 months. At a maximum benzene content of 1%, the average monthly benzene waste generation is 6.2 pounds.

CONTROLS

The waste benzene is collected in containers that are sealed when not receiving wastes.

COMPLIANCE REQUIREMENTS

The benzene in aqueous wastes is 74.4 pounds per year (< 2,200 pounds per year), therefore this notification constitutes fulfillment of all requirements under the NESHAP for Benzene Waste Operations.

If you have any questions concerning this notification, please contact Karen LeMieux, Ecology Services Engineer, at (313) 246-6429.

Sincerely,

D. P. Thiel
Manager, Quality & Ecology Services

attachment
kal

CC: Dennis Drake
Chief, Air Quality Division
Michigan Department of Natural Resources
P.O. Box 30028
Lansing, Michigan 48909

Jamal Naas
Engineer, Enforcement
Air Pollution Control Division
Wayne County Department of Public Health
640 Temple Street, Suite 700
Detroit, Michigan 48201

ATTACHMENT 7

AIR PERMIT
INFORMATION

BASF CORPORATION CHEMICALS DIVISION
WYANDOTTE SITE

	PLANT	INSTALLATION PERMIT NO.	OPERATING PERMIT NO.	DATE ISSUED	SOURCE I.D.	VENT DESCRIPTION	CONTROL EQUIPMENT	RATED CAPACITY	ALLOWABLE EMISSIONS NOT TO EXCEED
1	TPU EXTRUDER	C-8233 ISSUED 10/24/89	C-8233	02/09/90	155	THERMOPLASTIC POLYURETHANE EXTRUDERS	NONE	1,800 SCFM	0.0052 LB/HR NOR 0.023 TON/YR OF DIPPI *
2	TPU SYNTHESIS	C-8931	PENDING	06/26/90	160 (VS 01)	MDI STORAGE TANKS (2)	CARBON BED	8,700 GAL	2.7 UG/SEC NOR 0.003 LB/YR OF MDI **
3	TPU SYNTHESIS	C-8932	PENDING	06/26/90	161 (VS 02)	LUPRAGEN STORAGE TANK	CARBON BED	270 GAL	0.9 UG/SEC NOR 0.0011 LB/YR OF LUPRAGEN 1.2 UG/SEC NOR 0.0015 LB/YR OF DIPPI **
4	TPU SYNTHESIS	C-8933	PENDING	06/26/90	162 (VS 03)	LUPRAGEN OVEN	NONE	6,250 CFM	10.5 UG/SEC NOR 0.006 LB/YR OF LUPRAGEN 1.8 UG/SEC NOR 0.001 LB/YR OF DIPPI **
5	TPU SYNTHESIS	C-8934	PENDING	06/26/90	163 (VS 04)	POLYDIOL REFILL VESSELS (2)	NONE		
6	TPU SYNTHESIS	C-8935	PENDING	06/26/90	164 (VS 05)	MDI REFILL VESSEL	CARBON BED		9.6 UG/SEC NOR 0.01 LB/YR OF MDI **
7	TPU SYNTHESIS	C-8936	PENDING	06/26/90	165 (VS 06)	BUTANEDIOL REFILL VESSEL	NONE		
8	TPU SYNTHESIS	C-8937	PENDING	06/26/90	166 (VS 07)	LUPRAGEN DOSING VESSEL	CARBON BED		5.9 UG/SEC NOR 0.0024 LB/YR OF LUPRAGEN 0.8 UG/SEC NOR 0.0003 LB/YR OF DIPPI **

04/15/93

* FROM 08/30/89 WAYNE COUNTY HEALTH DEPARTMENT AIR POLLUTION CONTROL DIVISION LETTER.
** FROM 03/23/93 WAYNE COUNTY HEALTH DEPARTMENT AIR POLLUTION CONTROL DIVISION LETTER (REVISION OF 06/04/90 LETTER).

AIR PERMIT
INFORMATION

BASF CORPORATION CHEMICALS DIVISION
WYANDOTTE SITE

	PLANT	INSTALLATION PERMIT NO.	OPERATING PERMIT NO.	DATE ISSUED	SOURCE I.D.	VENT DESCRIPTION	CONTROL EQUIPMENT	RATED CAPACITY	ALLOWABLE EMISSIONS NOT TO EXCEED
9	TPU SYNTHESIS	C-8938	PENDING	06/26/90	167 (VS 08)	REACTION BELT HOT ZONE	WATER SCRUBBER	588 CFM	0.0017 G/SEC NOR 115 LB/YR OF DIPPI 0.00037 G/SEC NOR 26 LB/YR OF MDI 0.0019 G/SEC NOR 134 LB/YR OF LUPRAGEN 0.03 G/SEC NOR 0.097 TONS/YR OF 1,4-BUTANEDIOL *
10	TPU SYNTHESIS	C-8939	PENDING	06/26/90	168 (VS 09, 10 & 11)	REACTION BELT COOL ZONE	NONE	11,500 CFM	0.33 G/SEC NOR 11.6 TON/YR OF 1,4-BUTANEDIOL 0.0091 G/SEC NOR 632.2 LB/YR OF LUPRAGEN 0.0068 G/SEC NOR 471 LB/YR OF DIPPI 0.0018 G/SEC NOR 130 LB/YR OF MDI *
11	TPU SYNTHESIS	C-8940	PENDING	06/26/90	169 (VS 12)	MIX POT AREA/ MAIN MIXING HEAD	NONE	706 CFM	
12	TPU SYNTHESIS	C-8930	PENDING	06/26/90	170 (VS 25)	POLYDIOL STORAGE TANKS (2)	NONE	26,400 GAL	
13	TPU SYNTHESIS	C-8929	PENDING	06/26/90	171 (VS 26)	BUTANIEDIOL STORAGE TANK	NONE	8,700 GAL	
14	TPU SYNTHESIS	C-8941	PENDING	06/26/90	172 (VS 15)	MIX POT CLEANING OPERATION OVEN	WATER SCRUBBER	371 CFM	
15	TPU SYNTHESIS	C-8942	PENDING	06/26/90	173 (VS 16 VIA VS 17)	SILOS (3)	DUST COLLECTOR	70 CFM	0.0004 G/SEC NOR 26 LB/YR OF PARTICULATES 0.00021 G/SEC NOR 14.4 LB/YR OF DIPPI *

04/15/93

* FROM 03/23/93 WAYNE COUNTY HEALTH DEPARTMENT AIR POLLUTION CONTROL DIVISION LETTER (REVISION OF 06/04/90 LETTER).

AIR PERMIT
INFORMATION

BASF CORPORATION CHEMICALS DIVISION
WYANDOTTE SITE

	PLANT	INSTALLATION PERMIT NO.	OPERATING PERMIT NO.	DATE ISSUED	SOURCE I.D.	VENT DESCRIPTION	CONTROL EQUIPMENT	RATED CAPACITY	ALLOWABLE EMISSIONS NOT TO EXCEED
16	TPU SYNTHESIS	C-8943	PENDING	06/26/90	174 (VS 17)	DOUBLE CONE BLENDERS (2)	DUST COLLECTOR	1,471 CFM	0.008 G/SEC NOR 0.29 TON/YR OF PARTICULATES 0.0000864 G/SEC NOR 0.3 LB/YR OF DIPPI *
17	TPU SYNTHESIS	C-8944	PENDING	06/26/90	175 (VS 18)	DICER	NONE	1,176 CFM	0.0015 G/SEC NOR 105 LB/YR OF DIPPI *
18	TPU SYNTHESIS	C-8945	PENDING	06/26/90	176 (VS 19)	DISCONTINUOUS DRYER	CARBON BED	147 CFM	0.00163 G/SEC NOR 4 LB/YR OF DIPPI *
19	TPU SYNTHESIS	C-8946	PENDING	06/26/90	177 (VS 13)	BELT AREA VENTILATION	NONE	10,500 CFM	
20	TPU SYNTHESIS	C-8947	PENDING	06/26/90	178 (VS 27)	TABLE VENTILATION	NONE	3,000 CFM	

04/15/93

* FROM 03/23/93 WAYNE COUNTY HEALTH DEPARTMENT AIR POLLUTION CONTROL DIVISION LETTER (REVISION OF 06/04/90 LETTER).

AIR PERMIT INFORMATION

BASF CORPORATION CHEMICALS DIVISION
WYANDOTTE SITE

	PLANT	INSTALLATION PERMIT NO.	OPERATING PERMIT NO.	DATE ISSUED	SOURCE I.D.	VENT DESCRIPTION	CONTROL EQUIPMENT	RATED CAPACITY	MAXIMUM ALLOWABLE EMMISSIONS
24	VITAMIN E	C-5315 ✓	5-21554	04/06/89	042	TMHQ HOPPER	FABRIC FILTER COLLECTOR	3200 ACFM	1.46 LBS/HR NOR 5.25 TONS/YR OF PARTICULATES *
25	VITAMIN E	C-4559-62 ✓	5-21560	04/06/89	040	(4) UNITS VACUUM PUMPS (PHARMA DISTRIBUTIION)	NONE	9000 CU FT/HR	0.00 LBS/HR NOR 0.00 TONS/YR OF PARTICULATE *
26	VITAMIN E	C-4563 ✓	5-21555	04/06/89	044	SILICA AIRVEYING SYSTEM - VITAMIN E ***	SETTLING CHAMBER FABRIC FILTER COLLECTOR	1200 ACFM	0.10 LBS/1000 LBS OF EXHAUST NOR 2.4 TONS/YR OF PARTICULATE *
27	VITAMIN E	C-4564 ✓	5-22981	04/06/89	045	SILICA SILO	FABRIC FILTER COLLECTOR	700 ACFM	0.10 LBS/1000 LBS OF EXHAUST NOR 1.4 TONS/YR OF PARTICULATE *
28	VITAMIN E	C-4558 ✓	5-21548	04/06/89	041	SLURRY TANK - VITAMIN E	NONE		0.00 LBS/HR NOR 0.00 TONS/YR OF PARTICULATE *
29	VITAMIN E	C-4565 ✓	5-21556	04/06/89	043	E50% BAGGING OPERATION FILTER ***	FABRIC FILTER COLLECTOR	500 ACFM	0.10 LBS/1000 LBS OF EXHAUST NOR 0.99 TONS/YR OF PARTICULATE *
30	VITAMIN POWDERS	C-5525 C-5526 ✓	5-21543	04/06/89	070	VITAMIN A SPRAY TOWER ***	SINGLE CYCLONE FABRIC FILTER COLLECTOR	2500 SCFM	0.10 LBS/1000 LBS OF EXHAUST NOR 2.4 TONS/YR OF PARTICULATE *
31	VITAMIN POWDERS	C-5527-31 ✓	500418 - 21	09/18/85	071	VITAMIN A FLUID BED DRYER (3 UNITS)	SINGLE CYCLONE FABRIC FILTER COLLECTOR		0.10 LBS/1000 LBS OF EXHAUST NOR 2.5 TONS/YR OF PARTICULATE *
32	VITAMIN POWDERS	C-5532 ✓ C-5533	500422	09/18/85	072	VITAMIN A PRODUCT TRANSFER BLOWER ***			0.10 LBS/1000 LBS OF EXHAUST NOR 0.14 TONS/YR OF PARTICULATE *
33	VITAMIN POWDERS	C-5534 C-5535 ✓	5-21540	04/06/89	073	VITAMIN A SPOT VENTILATION SYSTEM VITAMIN A STORAGE SILO	FABRIC FILTER COLLECTOR	1760 SCFM	0.10 LBS/1000 LBS OF EXHAUST NOR 1.41 TONS/YR OF PARTICULATE *
34	VITAMIN POWDERS	C-5536 ✓ C-5537	5-21539	04/06/89	074	VITAMIN A STARCH COLLECTION BLOWER ***	SINGLE CYCLONE FABRIC FILTER COLLECTOR		0.10 LBS/1000 LBS OF EXHAUST NOR 0.48 TONS/YR OF PARTICULATE *
35	VITAMIN POWDERS	C-6746 ✓	5-22982	04/06/89	075	AIR HEATER FOR SPRAY DRYER ***	NONE	1.5 MILLION BTU/HR USING NATURAL GAS	0.00 LBS/HR NOR 0.00 TONS/YR OF PARTICULATE **

* FROM 10/07/88 WAYNE COUNTY AIR POLLUTION CONTROL DIVISION LETTER.
** AS PER 11/28/90 PHONE CONVERSATION WITH JAI SINGH, EXEMPT FROM PERMITTING (SECTION 411(A)1 OF THE ORDINANCE).
*** VENT DESCRIPTION REVISED IN 06/07/90 CERTIFICATE OF OPERATION.

03/14/92

AIR PERMIT
INFORMATION

BASF CORPORATION CHEMICALS DIVISION
WYANDOTTE SITE

	PLANT	INSTALLATION PERMIT NO.	OPERATING PERMIT NO.	DATE ISSUED	SOURCE I.D.	VENT DESCRIPTION	CONTROL EQUIPMENT	RATED CAPACITY	MAXIMUM ALLOWABLE EMMISSIONS
36	VITAMIN POWDERS	C-9167 ✓	C-9167	01/30/92	076	SPRAY DRYER AND SPOT VENTILATION EXHAUST ** MODIFIED TO SPRAY DRYER	2 BAG FILTERS 1 CYCLONE	3,000 CFM	0.10 LBS/1000 LBS OF EXHAUST NOR 0.14 LB/HR NOR 0.43 TONS/YR OF PARTICULATE ***
	VITAMIN POWDERS		*****		077	DOUBLE CONE DRYER (CHANGE TO SCRUBBER EXHAUST)	SCRUBBER		
	VITAMIN FOOD BLENDS		*		078	FOOD BLENDS LABELER	NONE		
37	VITAMIN POWDERS	C-9166 ✓	C-9166	01/30/92	079	SPOT DUST COLLECTION	FABRIC FILTER	1,600 CFM	0.10 LBS/1000 LBS OF EXHAUST NOR 0.092 LB/HR NOR 0.288 TONS/YR OF PARTICULATE ***
38	VITAMIN POWDERS	C-9168 ✓	C-9168	01/30/92	200	POWDER PLANT VACUUM CLEANING	FABRIC FILTER	500 CFM	0.10 LBS/1000 LBS OF EXHAUST NOR 0.0228 LB/HR NOR 0.0.071 TONS/YR OF PARTICULATE ***
39	VITAMIN POWDERS	C-9165	C-9165	01/30/92	201	BAGHOUSE DUST COLLECTOR (BL-801 CHARGING SYSTEM)	FABRIC FILTER	400 CFM	0.10 LBS/1000 LBS OF EXHAUST NOR 0.018 LB/HR NOR 0.025 TONS/YR OF PARTICULATE ***
40	VITAMIN E	C-9100 ✓	C-9100	11/14/91	047	NITROGEN PADDING SYSTEM	NONE	2.5 SCFM	1.4 LBS/HR NOR 33 LBS/DA NOR 4.5 TONS/YR OF VOC ****

* AS PER 11/28/90 PHONE CONVERSATION WITH JAI SINGH, EXEMPT FROM PERMITTING (SECTION 411(A)1 OF THE ORDINANCE).
** VENT DESCRIPTION REVISED IN 06/07/90 CERTIFICATE OF OPERATION.
*** FROM 05/24/91 WAYNE COUNTY AIR POLLUTION CONTROL DIVISION LETTER.
**** FROM 09/04/91 WAYNE COUNTY AIR POLLUTION CONTROL DIVISION LETTER.
***** REMOVED FROM SERVICE AS PER 04/04/91 PHONE CONVERSATION WITH WAYNE COUNTY AIR POLLUTION CONTROL DIVISION.

03/14/92

AIR PERMIT
INFORMATION

BASF CORPORATION CHEMICALS DIVISION
WYANDOTTE SITE

	PLANT	INSTALLATION PERMIT NO.	OPERATING PERMIT NO.	DATE ISSUED	SOURCE I.D.	VENT DESCRIPTION	CONTROL EQUIPMENT	RATED CAPACITY	ALLOWABLE EMISSIONS NOT TO EXCEED
37	CHEMICAL ENGINEERING RESEARCH	C-5277	5-21563	04/06/89	050	PIX REACTOR VENTS (2)	TOTAL CONDENSORS		0.001 LBS/HR NOR 1.6 LBS/YR PIX 0.025 LBS/HR NOR
					"				32 LBS/YR N-METHYLPIPERIDINE 6.25 LBS/HR NOR 4.0 TONS/YR VOC (METHYL CHLORIDE) *
38	CHEMICAL ENGINEERING RESEARCH		5-21561	04/06/89	051	DEV CHEM VENTS (2)	TOTAL CONDENSORS		NOT SPECIFIED
39	CHEMICAL ENGINEERING RESEARCH	C-8877	C-8877	12/05/91	052	EAST STEAM JETS (EJECTORS)	BAROMETRIC CONDENSERS		0.5 LBS/HR NOR 84 LBS/YR SOLVENT A (CONFIDENTIAL) **
40	CHEMICAL ENGINEERING RESEARCH	C-8873	C-8873	12/05/91	053	TANK TK-52	NONE		0.1 LBS/HR NOR 78 LBS/YR SOLVENT A (CONFIDENTIAL) **
41	CHEMICAL ENGINEERING RESEARCH	C-8876	C-8876	12/05/91	054	REACTOR R-30	NONE		1.6 LBS/HR NOR 0.53 TONS/YR SOLVENT A (CONFIDENTIAL) **
42	CHEMICAL ENGINEERING RESEARCH	C-8872	C-8872	12/05/91	055	MEASURE TANK T-28	NONE		
43	CHEMICAL ENGINEERING RESEARCH	C-8875	C-8875	12/05/91	056	REACTOR R-17	NONE		
44	CHEMICAL ENGINEERING RESEARCH	C-8878	C-8878	12/05/91	057	DRUMMING HOOD	NONE		1.0 LBS/HR NOR 93 LBS/YR SOLVENT A (CONFIDENTIAL) 0.00076 LBS/HR NOR
					"				0.015 LBS/YR NVP 0.36 LBS/HR NOR 3.6 LBS/YR CYCLOHEXYLAMINE **
45	CHEMICAL ENGINEERING RESEARCH	C-8874	C-8874	12/05/91	058	SCALE TANK T-63	NONE		0.7 LBS/HR NOR 0.29 TONS/YR SOLVENT A (CONFIDENTIAL) 0.24 LBS/HR NOR 139 LBS/YR
					"				SOLVENT B (CONFIDENTIAL) 1 LB/HR NOR 9.6 LBS/YR CYCLOHEXYLAMINE **

04/15/93

* FROM AIR PERMIT SUMMARY BY WAYNE COUNTY AIR POLLUTION CONTROL DIVISION.
** FROM 07/17/91 PERMIT CONDITIONS LETTER BY WAYNE COUNTY AIR POLLUTION CONTROL DIVISION.

	PLANT	INSTALLATION PERMIT NO.	OPERATING PERMIT NO.	DATE ISSUED	SOURCE I.D.	VENT DESCRIPTION	CONTROL EQUIPMENT	RATED CAPACITY	ALLOWABLE EMISSIONS NOT TO EXCEED
	CHEMICAL ENGINEERING RESEARCH	C-9028 PERMIT CANCELED NOT INSTALLED		08/06/91	500	NaMBT REACTOR	FABRIC FILTER	2,000 GAL	0.02 LBS/HR NOR 1.2 LBS/YR 2-MBT *
46	CHEMICAL ENGINEERING RESEARCH	C-9699 ISSUED 04/06/93 CHLOR AMINE HCL			501 504 505	REACTOR R-1 VIA MECH VENT SYS REACTOR R-2 DRYER Z-1 VIA MECH VENT SYS	NONE SCRUBBER T-5 SCRUBBER T-9	300 GAL 300 GAL 4 CUBIC FEET	49.4 LBS/BATCH NOR 3.71 TON/YR TOT VOC'S -- 3.84 LB/BATCH NOR 0.29 TON/YR TOT HCl & SO2 ***
47	CHEMICAL ENGINEERING RESEARCH	C-10110 ISSUED 04/06/93 AMINE OXIDE			054 058 503	REACTOR R-30 SCALE TANK T-63 HOLD TANK T-64	CONDENSER E-4 NONE NONE	2,000 GAL 1,000 GAL 774 GAL	6.4 LBS/BATCH NOR 243.0 LBS/YR TOTAL VOC'S FROM ALL VENT SOURCES ***
		"			052 057	EAST STEAM JETS DRUMMING HOOD EF-S	BAROMETRIC CONDENSER NONE	7,000 CFM	
	CHEMICAL ENGINEERING RESEARCH	**			503	HOLD TANK TK-64 BLEND TANK TK-65		774 GAL	
48	CHEMICAL ENGINEERING RESEARCH	C-10109 ISSUED 04/06/93 ACID ESTER			054 054 057	REACTOR R-30 " DRUMMING HOOD EF-S	CONDENSER E-5 CONDNESER E-4 NONE	2,000 GAL 2,000 GAL 7,000 CFM	3.4 LBS/BATCH NOR 112.2 LBS/YR TOTAL VOC'S FROM ALL VENT SOURCES ***
		"			052	EAST STEAM JETS	BAROMETRIC CONDENSER		
49	CHEMICAL ENGINEERING RESEARCH	C-10034 ISSUED 01/04/93 MONO-N-ACYL AM			501 504	REACTOR R-2 VIA MECH VENT SYS REACTOR R-2	NONE CONDENSER E-2	300 GAL 300 GAL	0.15 LB/HR NOR 6.1 LB/YR VOC (CHARGING)--0.05 LB/HR NOR 4.01 LB/YR VOC (REACTION) ****

04/15/93

* FROM 07/17/91 PERMIT CONDITIONS LETTER BY WAYNE COUNTY AIR POLLUTION CONTROL DIVISION.

** PERMIT NOT REQUIRED SINCE BOTH EMISSION RATES AND TOXICITY ARE VERY LOW, AS AGREED DURING VERBAL CONVERSATION WITH KWON ON 12/05/91. NOTE THAT ANY CHANGES TO THIS SYSTEM AFTER 12/05/91 MAY BE SUBJECT TO AIR PERMITTING.

*** FROM 03/22/93 PERMIT CONDITIONS LETTERS BY WAYNE COUNTY AIR POLLUTION CONTROL DIVISION

**** FROM 01/04/93 PERMIT CONDITIONS LETTER BY WAYNE COUNTY AIR POLLUTION CONTROL DIVISION

AIR PERMIT
INFORMATION

BASF CORPORATION CHEMICALS DIVISION
WYANDOTTE SITE

	PLANT	INSTALLATION PERMIT NO.	OPERATING PERMIT NO.	DATE ISSUED	SOURCE I.D.	VENT DESCRIPTION	CONTROL EQUIPMENT	RATED CAPACITY	MAXIMUM ALLOWABLE EMMISSIONS
70 69	ELASTOCELL	C-7907	5-23008	04/10/89	300	SOLVENT STORAGE TANK (TK-111) BREATHER VENT	VAPOR RETURNS	3000 gal	0.78 LBS/YEAR OF VOC EMISSIONS *
70	ELASTOCELL	C-7908	5-23009	04/10/89	301	SOLVENT STORAGE TANK (TK-112) BREATHER VENT	VAPOR RETURNS	3000 gal	0.78 LBS/YEAR OF VOC EMISSIONS *
71	ELASTOCELL	C-7909	5-23010	04/10/89	302	MOLD CLEANING UNIT	FABRIC FILTER DUST COLLECTOR	1,320 CFM	0.003 LBS/HOUR NOR 0.012 TONS/YEAR OF PARTICULATE *
72	ELASTOCELL	C-8206	5-23018	04/10/89	303	NITROGEN DEBURRING MACHINE	FABRIC FILTER DUST COLLECTOR	300 SCFM	0.003 LBS/HOUR NOR 0.012 TONS/YEAR OF PARTICULATE *
73	ELASTOCELL	C-7910	5-23011	04/10/89	304	REACTOR (R-210)	CENTRIFUGAL SEPARATOR		NOT SPECIFIED
74	ELASTOCELL	C-7911	5-23012	04/10/89	305	REACTOR (R-220)	CENTRIFUGAL SEPARATOR		NOT SPECIFIED
75	ELASTOCELL	C-7912	5-23013	04/10/89	306	REACTOR (R-230)	CENTRIFUGAL SEPARATOR		NOT SPECIFIED
76	ELASTOCELL	C-7913	5-23014	04/10/89	307	VACUUM PUMPS	NONE		0.042 TONS/YEAR OF VOC EMISSIONS *
77	ELASTOCELL	C-7914	5-23015	04/10/89	308	MDI HOPPER	NONE		NOT SPECIFIED
78	ELASTOCELL	C-7915	5-23016	04/10/89	309	MOLD LINE EXHAUSTS (4)	NONE		NOT SPECIFIED
79	ELASTOCELL	C-7916 C-9073	5-23017 C-9073	04/29/91 11/14/91	310	OVENS AND GENERAL BUILDING EXHAUST	OIL MIST COLLECTOR	2,000 CFM	0.02 LB/HR NOR 170 LB/YR TOTAL SUSPENDED AND CONDENSIBLE PARTICULATES (WHITE OIL) **
80	ELASTOCELL	C-7906	5-23007	04/10/89	311	CROSS-LINKING WORK STATION EXHAUST	NONE	1,500 CFM	NOT SPECIFIED

* FROM 10/07/88 WAYNE COUNTY HEALTH DEPARTMENT AIR POLLUTION CONTROL DIVISION LETTER.
** FROM 04/29/91 WAYNE COUNTY HEALTH DEPARTMENT AIR POLLUTION CONTROL DIVISION LETTER.

03/12/92

AIR PERMIT
INFORMATION

BASF CORPORATION CHEMICALS DIVISION
WYANDOTTE SITE

	PLANT	INSTALLATION PERMIT NO.	OPERATING PERMIT NO.	DATE ISSUED	SOURCE I.D.	VENT DESCRIPTION	CONTROL EQUIPMENT	RATED CAPACITY	MAXIMUM ALLOWABLE EMMISSIONS
81	ELASTOCELL	C-7905	5-23006	04/10/89	312	SOLVENT CLEANING STATION EXHAUST	NONE	4,000 CFM	NOT SPECIFIED

AIR PERMIT INFORMATION

BASF CORPORATION CHEMICALS DIVISION
WYANDOTTE SITE

PLANT	INSTALLATION PERMIT NO.	OPERATING PERMIT NO.	DATE ISSUED	SOURCE I.D.	VENT DESCRIPTION	CONTROL EQUIPMENT	RATED CAPACITY	MAXIMUM ALLOWABLE EMISSION ~~EMISSIONS~~ NOT TO EXC
ELASTOGRAN MACHINERY	~~C-8897~~ 9592 ISSUED 3/1/92	~~C-8897~~ C-9562 ~~ISSUED 5/23/90~~	~~03/05/91~~ 06/03/92	120	ELASTOGRAN MIXING HEAD CLEANING OPERATION	NONE	5,400 CFM	0.06 LBS/HR NOR 254 LBS/YR OF ETHYLENE GLYCOL MONOMETHYL ETHER *
"	C-8897 ISSUED 08/04/90	C-8897	03/05/91	"	"			* *
"	C-				AUTOPAK FOAM SPRAY PROCESS	NONE		.0041 g/hr NOR 2.5g/yr MDI

03/12/92

* FROM ~~05/23/90~~ 03/13/92 WAYNE COUNTY AIR POLLUTION CONTROL DIVISION LETTER.

* FROM ORIGINAL PERMIT FOR WYANDOTTE SITE LOCATION, RELOCATED TO 13TH STREET IN 01/92

AIR PERMIT
INFORMATION

BASF CORPORATION CHEMICALS DIVISION
WYANDOTTE SITE

	PLANT	INSTALLATION PERMIT NO.	OPERATING PERMIT NO.	DATE ISSUED	SOURCE I.D.	VENT DESCRIPTION	CONTROL EQUIPMENT	RATED CAPACITY	MAXIMUM ALLOWABLE EMMISSIONS
83	POLYMERS	MODIFIED 01/08/91	5-21551	04/06/89	016	POLYOL VACUUM JETS (6)	SCRUBBER WITH WATER		NONE SPECIFIED
84	POLYMERS	C-2123	5-21550	04/06/89	017	POLYOL TDA SCRUBBER	SCRUBBER WITH WATER	50 CFM	NONE SPECIFIED
85	POLYMERS	C-6023	5-21552	04/06/89	080	POLYOL FUME INCINERATOR	INCINERATOR	26 LBS/HOUR	0.01 UG/M3 ACRYLONITRILE 6.48 LB/HR NOR 4.2 TONS/YR NO2 *
86	POLYMERS	C-5637	5-22984	04/06/89	018	MAGNESIUM SILICATE CHARGING HOOD	DUST COLLECTOR	850 CFM	NONE SPECIFIED
87	POLYMERS	C-8618	C-8618	02/13/92	019	TDI STORAGE TANK	CARBON ADSORBER		0.00058 LBS/HR NOR 0.155 LBS/YR TDI **
					"				
	POLYMERS	****	***		104	SULFURIC ACID STORAGE TANK	NONE		
	POLYMERS	***				PHOSPHORIC ACID STORAGE TANK TK-433B	NONE	6,200 GALLONS	

* FROM WAYNE COUNTY AIR POLLUTION CONTROL DIVISION'S AIR PERMIT SUMMARY.
** FROM 12/05/89 WAYNE COUNTY AIR POLLUTION CONTROL DIVISION LETTER.
*** PERMIT NOT REQUIRED AS PER 10/21/91 PHONE CONVERSATION WITH JAI SINGH OF WCAPCD.
**** PERMIT NOT REQUIRED FOR STORAGE OF ACID (NON-VOLATILE AND LOW TOXICITY).

03/14/92

AIR PERMIT INFORMATION

BASF CORPORATION CHEMICALS DIVISION
WYANDOTTE SITE

	PLANT	INSTALLATION PERMIT NO.	OPERATING PERMIT NO.	DATE ISSUED	SOURCE I.D.	VENT DESCRIPTION	CONTROL EQUIPMENT	RATED CAPACITY	MAXIMUM ALLOWABLE EMMISSIONS
88	EPC	C-8110	5-23273	04/04/90	350	PNEUMATIC CONVEYOR SYSTEM RM1A SOURCE I.D. X-223 A	DUST COLLECTOR WITH FABRIC FILTER F-201-A	400 CFM	0.007 LBS/HR NOR 7.3 LBS/YR PARTICULATE *
89	EPC	C-8111	5-23276	04/04/90	351	PNEUMATIC CONVEYOR SYSTEM RM2 SOURCE I.D. X-323	DUST COLLECTOR WITH FABRIC FILTER F-301	409 CFM	0.007 LBS/HR NOR 7.3 LBS/YR PARTICULATE *
90	EPC	C-8112	5-23274	04/04/90	352	PNEUMATIC CONVEYOR SYSTEM FG1 SOURCE I.D. X-224	DUST COLLECTOR WITH FABRIC FILTER F-204	146 CFM	0.0013 LBS/HR NOR 8.1 LBS/YR PARTICULATE *
91	EPC	C-8113	5-23278	04/04/90	353	PNEUMATIC CONVEYOR SYSTEM FG2 SOURCE I.D. X-324	DUST COLLECTOR WITH FABRIC FILTER F-304	146 CFM	0.0013 LBS/HR NOR 8.1 LBS/YR PARTICULATE *
92	EPC	C-8114	5-23275	04/04/90	354	FLUID BED COOLER 1 SOURCE I.D. E-202	DUST COLLECTOR WITH FABRIC FILTER F-203	1,000 CFM	0.0044 LBS/HR NOR 27.5 LBS/YR PARTICULATE *
93	EPC	C-8108	5-23279	04/04/90	355	FLUID BED COOLER 2 SOURCE I.D. E-302	DUST COLLECTOR WITH FABRIC FILTER F-303	1,000 CFM	0.0044 LBS/HR NOR 27.5 LBS/YR PARTICULATE *
94	EPC	C-8106	5-23277	04/04/90	356	MIXER, HOPPER AND SCALE DUST COLLECTION SYSTEMS	DUST COLLECTOR WITH FABRIC FILTER F-305	300 CFM	0.0009 LBS/HR NOR 5.6 LBS/YR PARTICULATE *
95	EPC	C-8105	5-23280	04/04/90	357	BAG DISCHARGE SYSTEM SOURCE I.D. X-310	X-310	672 CFM	0.01 LBS/HR NOR 24 LBS/YR PARTICULATE *
96	EPC	C-8104	5-23281	04/04/90	358	GENERAL PLANT PROCESS VENTS - SOURCE I.D. T-10	VENTURI WASHER	4,150 CFM	0.005 GR/DSCF NOR 0.0176 LBS/HR NOR 109.8 LBS/YR PARTICULATE *
97	EPC	C-8654	5-23282	04/04/90	359	PNEUMATIC CONVEYOR SYSTEM RM1B SOURCE I.D. X-223 B	DUST COLLECTOR WITH FABRIC FILTER F-201-B	400 CFM	0.007 LBS/HR NOR 7.3 LBS/YR PARTICULATE *
98	EPC	C-9407		01/17/92	360	SCRAP PLASTIC GRINDER NOT INSTALLED REF. TO ECELL	CYCLONE COLLECTOR	700 ACFM	0.02 LBS/HR NOR 0.02 TONS/YR PARTICULATE **
	EPC	05/21/92			361	PNEUMATIC CONVEYOR SYSTEM BL01	FABRIC FILTER WITH VENTURI WASHER	150 CFM	***

11/10/92

* FROM 01/22/90 WAYNE COUNTY AIR POLLUTION CONTROL DIVISION LETTER.
** FROM 12/10/91 WAYNE COUNTY AIR POLLUTION CONTROL DIVISION LETTER.
***EXEMPT FROM PERMITTING AS PER 05/21/92 WCAPCD LETTER

AIR PERMIT
INFORMATION

BASF CORPORATION CHEMICALS DIVISION
WYANDOTTE SITE

PLANT	INSTALLATION PERMIT NO.	OPERATING PERMIT NO.	DATE ISSUED	SOURCE I.D.	VENT DESCRIPTION	CONTROL EQUIPMENT	RATED CAPACITY	MAXIMUM ALLOWABLE EMMISSIONS
EPC	SUBMITTED 03/20/92			362	RAILCAR UNLOADING - NYLON	FABRIC FILTER F-1011Z	25,200 LB/HR NYLON 1,450 SCFM	
EPC	SUBMITTED 03/20/92			363	RAILCAR UNLOADING - PBT	FABRIC FILTER F-1021Z	25,200 LB/HR PBT 1,450 SCFM	
EPC	SUBMITTED 03/20/92			364	NYLON "A" SILO	FABRIC FILTER F-1040	7,000 CU FT 1,450 SCFM	
EPC	SUBMITTED 03/20/92			365	NYLON "B" SILO	FABRIC FILTER F-1050	7,000 CU FT 1,450 SCFM	
EPC	SUBMITTED 03/20/92			366	PBT SILO	FABRIC FILTER F-1060	7,000 CU FT 1,450 SCFM	
EPC	SUBMITTED 03/20/92			367	LINE 4 PELLET FEED MIXER	FABRIC FILTER F-427	100 GAL 375 SCFM	
EPC	SUBMITTED 03/20/92			368	LINE 5 PELLET FEED MIXER	FABRIC FILTER F-527	100 GAL 375 SCFM	
EPC	SUBMITTED 03/20/92			369	LINE 6 PELLET FEED MIXER	FABRIC FILTER F-627	100 GAL 375 SCFM	
EPC	SUBMITTED 03/20/92			370	ELASTOMER FEED H-405	FABRIC FILTER F-426	150 GAL 225 SCFM	
EPC	SUBMITTED 03/20/92			371	MIXER/GLASS HANDLING VENT	FABRIC FILTER F-425	1160 SCFM	
EPC	SUBMITTED 03/20/92			372	LINE 4 MINERAL FILLER HOOD	FABRIC FILTER X-406	1,100 LB/HR 350 SCFM	
EPC	SUBMITTED 03/20/92			373	PELLET COOLERS	FABRIC FILTER F-421	2,200 LB/HR 3,000 SCFM	

AIR PERMIT
INFORMATION

BASF CORPORATION CHEMICALS DIVISION
WYANDOTTE SITE

PLANT	INSTALLATION PERMIT NO.	OPERATING PERMIT NO.	DATE ISSUED	SOURCE I.D.	VENT DESCRIPTION	CONTROL EQUIPMENT	RATED CAPACITY	MAXIMUM ALLOWABLE EMMISSIONS
EPC	SUBMITTED 03/20/92			374	LINE 4 PRODUCT PACKOUT	FABRIC FILTER F-424	20 SCFM	
EPC	SUBMITTED 03/20/92			375	LINE 5 PRODUCT PACKOUT	FABRIC FILTER F-524	20 SCFM	
EPC	SUBMITTED 03/20/92			376	LINE 6 MINERAL FILLER HOOD	FABRIC FILTER X-606	1,100 LB/HR 350 SCFM	
EPC	SUBMITTED 03/20/92			377	LINE 6 PRODUCT PACKOUT	FABRIC FILTER F-624	20 SCFM	
EPC	SUBMITTED 03/20/92			378	EXTRUDER VENT, LINES 4-6	VENTURI SCRUBBER	7500 SCFM	

11/10/92

AIR PERMIT
INFORMATION

BASF CORPORATION CHEMICALS DIVISION
WYANDOTTE SITE

	PLANT	INSTALLATION PERMIT NO.	OPERATING PERMIT NO.	DATE ISSUED	SOURCE I.D.	VENT DESCRIPTION	CONTROL EQUIPMENT	RATED CAPACITY	MAXIMUM ALLOWABLE EMISSIONS
100 ~~99~~	STEAM FACILITY	C-5639	5-21557	04/06/89	060	BOILER- 0018 STEAM GENERATORS #1	NONE	49.90 MBTU/HOUR	4.5 LBS/HOUR NOR 16.0 TONS/YEAR OF PARTICULATE DURING OIL USAGE *
100	STEAM FACILITY	C-5640	5-21558	04/06/89	060	BOILER- 0018 STEAM GENERATORS #2	NONE	49.90 MBTU/HOUR	4.5 LBS/HOUR NOR 16.6 TONS/YEAR OF PARTICULATE DURING OIL USAGE *
101	STEAM FACILITY	C-5641	5-21559	04/06/89	060	BOILER- 0018 STEAM GENERATORS #3	NONE	49.90 MBTU/HOUR	4.5 LBS/HOUR NOR 16.6 TONS/YEAR OF PARTICULATE DURING OIL USAGE *
102	STEAM FACILITY	C-5642	5-22995	04/06/89	060	BOILER- 0018 STEAM GENERATORS #4	NONE	49.90 MBTU/HOUR	4.5 LBS/HOUR NOR 16.6 TONS/YEAR OF PARTICULATE DURING OIL USAGE *

03/12/92

* BASED ON LIMITATIONS SET FORTH IN WAYNE COUNTY HEALTH DEPARTMENT AIR POLLUTION CONTROL DIVISION LETTERS DATED 11/20/87 AND 10/07/88.

AIR PERMIT INFORMATION

BASF CORPORATION CHEMICALS DIVISION
WYANDOTTE SITE

	PLANT	INSTALLATION PERMIT NO.	OPERATING PERMIT NO.	DATE ISSUED	SOURCE I.D.	VENT DESCRIPTION	CONTROL EQUIPMENT	RATED CAPACITY	MAXIMUM ALLOWABLE EMMISSIONS
	EPP		***		125	TCP STORAGE TANK (TK-701)	NONE		
	EPP		***		126	PP RECEIVING TANK (TK-704)	NONE		
	EPP		***		127	PP TRANSFER BLOWER (BL-704)	NONE		
	EPP		***		128	PP WEIGH HOPPER (H-710)	NONE		
	EPP		***		129	BUTANE STORAGE TANK (TK-700)	NONE		
	EPP		***		131	PROCESS WATER TANK (TK-760)	NONE		
	EPP		***		132	ARMOSTAT STORAGE TANK (TK730)	NONE		
	EPP		***		133	IMPREGATION VESSEL (D-710)	NONE		
	EPP		***		135	GAS HOLDER (TK-780)	NONE		8760 hrs
103	EPP	C-8107	5-23254	03/14/90	136 137	A-D EXHAUST VENT (X-740)	DUST COLLECTOR (F-780)		.044 LBS/HR NOR .19 TONS/YR OF PARTICULATE *
104	EPP	C-8109	5-23255	03/14/90	138	A/B EXHAUST VENT (X-741)	DUST COLLECTOR (F-741)		.044 LBS/HR NOR .19 TONS/YR OF PARTICULATE *
	EPP		***		139	EXHAUST VENT (F-780)	NONE		

* FROM 11/01/89 AIR POLLUTION CONTROL LETTER.
*** PERMIT NOT REQUIRED AS PER 12/4/89 TELEPHONE CONVERSATION WITH P. KURIKESU OF THE WAYNE COUNTY AIR POLLUTION CONTROL DIVISION

01/05/93

AIR PERMIT
INFORMATION

BASF CORPORATION CHEMICALS DIVISION
WYANDOTTE SITE

	PLANT	INSTALLATION PERMIT NO.	OPERATING PERMIT NO.	DATE ISSUED	SOURCE I.D.	VENT DESCRIPTION	CONTROL EQUIPMENT	RATED CAPACITY	MAXIMUM ALLOWABLE EMMISSIONS
	EPP		***		140	EXHAUST VENT (F-741)	NONE		
	EPP		***		141	RECYCLE WATER TANK (TK-782)	NONE		
	EPP		***		142	NEUTRALIZATION TANK (TK-781)	NONE		
	EPP		***		143	MOLDING MACHINE (2) (Z-770/Z-771)	NONE		
	EPP		N/A			FUGITIVE EMISSIONS			5.28 LBS/HR NOR 23.13 TONS/YR OF VOC *
	EPP		****		145	TCP FLEXIBLE CONVEYOR	DUST COLLECTOR		
105	EPP	C-8904	C-8904	12/23/92	146	NITRIC ACID STORAGE TANK (TK-702)	SCRUBBER		6 LBS/YR OF NITRIC ACID
	EPP					RAILCAR AND TRUCK LOADING		8,760.4	
	EPP				147	~~[illegible]~~ Transfer Blower	stack	8,760	
					148	Weigh Hopper	stack		
						Impregnation vessel			
						Gas holder			

* FROM 11/01/89 AIR POLLUTION CONTROL LETTER.
*** PERMIT NOT REQUIRED AS PER 12/04/89 TELEPHONE CONVERSATION WITH P. KURIKESU OF THE WAYNE COUNTY AIR POLLUTION CONTROL DIVISION
**** PERMIT NOT REQUIRED AS PER 8/12/92 LETTER FROM LILLIAN WOOLLEY OF THE WAYNE COUNTY AIR POLLUTION CONTROL DIVISION

149 Finished product conv w/ Blower
150 Storage Silos (3)
151 Screening ~~TCP~~ exhaust

01/05/93

TSCA-PCBs

1. Did the facility have or does it have any PCB electrical equipment? What equipment (type and quantity) is on-site?

NO

2. Does the facility have a PCB equipment storage area for disposal or reuse? Describe the storage area (i.e., concrete pad, walls, roof, curbs).

3. Are there any labels/markings on the PCB equipment?

4. Is there any leaking PCB electrical equipment? Describe.

5. Does the facility have any hydraulic systems? Any leaking?

Interview Questions/Records Review

1. If the facility has PCB electrical equipment, was it tested? What were the test results?

NO PCB ITEMS

2. If the facility has any hydraulic systems, when were they tested for PCBs? What were the test results?

TESTED IN 1989 - PCB CLEAN

EPCRA

Interview Questions/Records Review

1. Were there any chemical releases in excess of the reportable Superfund quantities (see below *)? Who was provided the notification? Was it oral or written?

None in 1993

2. Does the facility manufacture, process, or use any toxic chemicals in a quantify greater than 10,000 lbs/yr? Identify them. Are any of them section 313 chemicals (see below)?

YES

3. If the answer to question 2 is yes, has the facility submitted the toxic chemical release form (R)?

YES

	YES	NO
4. Are you aware of the Emergency Planning and Community Right-to-Know Act?	✓	

Section 302-303 Emergency Planning

		YES	NO
5. Have you used, produced, manufactured, or stored any Extremely Hazardous Substances (EHSs) in quantities greater than the threshold planning quantities for the calendar years? (Current year and one year prior)	1993	✓	
	1992	✓	
6. If yes, has your facility notified the State Emergency Response Commission (SERC) and the Local Emergency Planning Committee (LEPC) that it meets reporting requirements and has named an emergency coordinator to work with the LEPC?		✓	

Section 304 Accidental Release Notification	YES	NO
Is your facility aware of the accidental release notification requirements?	✓	
8. Has the facility had any accidental releases of CERCLA or EPCRA hazardous materials above the reportable quantities in the years? (Current year and one year prior) 1993		✓
1992		✓

9. Provide the following information for each release:

DATE	TIME	CHEMICAL	QUANTITY
1991	11/2/91	Ethylene Oxide	27 LBS

10. If the facility did experience accidental releases of CERCLA or EPCRA hazardous materials above the reportable quantities, did the facility supply a written follow-up report to the SERC and LEPC for each and every release?

Provide the dates the follow-up reports were submitted to the SERC and LEPC for each and every release identified above.

DATE OF RELEASE	DATE OF FOLLOW-UP TO SERC	DATE OF FOLLOW-UP TO LEPC
1991	11/12/91	11/12/91 (1)

Section 311-312 Hazardous Chemical Reporting	YES	NO
11. Is your facility required by OSHA to possess Material Safety Data Sheets (MSDSs) for hazardous chemicals under OSHA?	✓	
12. Do you, or did you store any hazardous material(s) greater than the threshold quantities designated for each hazardous material, at any time during: (Current year and one year Prior)? 1993	✓	
1992	✓	

13. For each hazardous material stored above the threshold planning quantity identified in #1 above, has your facility submitted a copy of the MSDS for the hazardous material to the following authorities?

SERC	✓	
LEPC	✓	
FIRE DEPT.	✓	

14. Has your facility submitted Emergency Hazardous Chemical Inventory Forms (TIER I or II) to the SERC, LEPC, and Fire Department for the following years? (Latest two reporting years, not current year. Current years report not due to March 1, of next year)

		SERC	LEPC	LFD
For calendar year 1993	Y/N	✓	✓	✓
For calendar year 1992	Y/N	✓	✓	✓

* The chemical subject to these requirements can be found in EPA publication number 560/4-92-011, January 1992, "Title III, List of Lists".

NOTES

(1) Refer to Attachment 8 for written follow-up notification

(2) BASF is also sending notifications on off-site shipments of asbestos wastes. See discussion in AIR checklist.

(3) Refer to Attachment 9 for 1992 EPCRA 313 Release Data Summary

(4) Refer to Attachment 10 for updated list of 311 MSDS Reporting

ATTACHMENT 8

BASF Corporation

BASF

CERTIFIED MAIL - RETURN
RECEIPT REQUESTED
SERC: P 257 499 387
LEPC: P 257 499 388
ERD: P 257 499 389

November 12, 1991

Mr. Kent Kanagy
Michigan Department of Natural Resources
State Emergency Response Commission
P.O. Box 30028
Lansing, MI 48909

Mr. Oladipo Oyinson
Michigan Department of Natural Resources
Environmental Response Division
38980 Seven Mile Road
Livonia, MI 48152

Mr. Mark R. Sparks
Acting LEPC Chairperson
Title III Local Emergency Planning Committee
10250 Middlebelt Road
Detroit, MI 48242

Dear Sirs:

On November 2, 1991 the BASF Corporation facility at Wyandotte, Michigan experienced a release of an extremely hazardous substance requiring notification under EPCRA Section 304. Verbal notification was provided on November 2, 1991 to the NRC, SERC (Wayne County Department of Public Health), and LEPC. Verbal notification was provided to the local fire department on November 7, 1991. The NRC Case Number is 64776. Pursuant to 40 CFR 355.40(b)(3), this submittal constitutes the written, follow-up notification.

Chemical Name	Ethylene Oxide
CAS Number	75-21-8
Quantity Released	27 pounds
Location	Polyols Plant
Approximate Time of Release	9:55 A.M.
Environmental Medium Affected	Air
Anticipated Acute or Chronic Health Risks	None
Medical Attention Requirements	None
Resulting Precautions	None

1609 Biddle Avenue, Wyandotte, Michigan 48192 (313) 246-6100

Cause of Incident: As a result of a defective pressure gauge which read low, excess nitrogen was introduced into the ethylene oxide storage tank. The elevated pressure caused the process safety valve to lift for approximately 20 seconds. A total of 27 pounds of ethylene oxide gas was released to the air. Out of 5 flammable vapor detectors located in the diked area, only one indicated an elevated reading. Upon being reset within one minute, it indicated normal readings of 0-5% Lower Explosive Limit.

Immediate Corrective Action Taken: The backup process safety valve was immediately put into service. The faulty pressure gauge was removed and replaced with a new, calibrated gauge. Two regulators, one which controls the nitrogen pad and one which vents the storage tank, were removed, calibrated, and placed back into service.

Preventive Action Plan: A second pressure gauge has been installed to indicate the internal pressure of the ethylene oxide storage tank. In addition, plant personnel will be counseled on changing regulator settings without proper notification to maintenance or supervisors.

If you are in need of any additional information, please call Charles Anderson at (313) 246-6209.

Sincerely,

Charles E. Anderson
Ecology Services Engineer

bc: MBuller
GTDurst
MHEhrlich
DCFigg
CDLaScola
RMLawrence
TMLynch
HLMcDonald
RRosen

ATTACHMENT 9

		Onsite Releases (lbs)				Offsite Transfers (lbs)									
		Air Emissions		To	To	To	CH	CH	CH	Col	Mich	Mot	Petro	Ross	Wayn
Chemical	Unit(s)	Fugitive	Point	Water	Land	POTW	Brain	Chic	Nat	Drum	Disp	Oil	Chem	Inc	Disp
	Res Serv	0	74			38							180		
	Polym	B	27	A	A								1,000	B	
Acrylonitrile	Total	B	101	A	A	38							1,180	B	
Bisphenol-A	Polym	B	B	B	B						B				
Chloromethane	Res Serv	0	962												
Diaminotoluene	Polym	A	A	47	A	B			C					A	
	EPO	A										19,000			
	Polym	A	A	A	A	23,000									
	Ureth	0	0							2					
Ethylene Glycol	Total	A	A	A	A	23,000				2		19,000			
	Res Serv	4	60			12									
	Polym	B	1,800	B	A	B					B				
Ethylene Oxide	Total	B	1,860	B	A	B					B				
Glycol Ethers	Ad/Phos	0	0	0		0				1,680					
	Ad/Phos	0	9			2									
	Vit	21	4,500			0	280	560							
Hydrochloric Acid	Total	21	4,509			2	280	560							
Manganese Compds	Ad/Phos		0			0									44
	Polym	A	A	0	A									C	
	TPU	A	B	0		0								17,600	
	Ureth	0	0												
MBI (MDI)	Total	12	B	0	A	0								19,000	
	Ad/Phos	190	72										19,000	984	
	Res Serv	10	150			4,100									
	Polym	B	0	B	B									B	
	Vit	560	1,900			140,000							1,080		
Methanol	Total	1,010	2,122	B	B	144,100							20,080	1,300	
	Ad/Phos		0			0									19
	EPC	0	0			0									
Nickel Compds	Total	0	0			0									19
	Ad/Phos	A	A			0									
	EPO		3	0		0									
	Res Serv					170									
Nitric Acid	Total	A	A	0		170									
	Ad/Phos		4	0		9									
	Res Serv	0	0												
	Polym	0	A	0	A										
Phosphoric Acid	Total	0	A	0	A	9									
	Res Serv	8	140												
	Polym	B	18,600	1,020	B	6,000					B				
Propylene Oxide	Total	B	18,740	1,020	B	6,000					B				
	Res Serv	0	38			20							93		
	Polym	B	490	B	A								600	100	
Styrene	Total	B	528	B	A	20							693	100	
	Elast	1	1	0											
	Polym	A	A	0	A										
	St Fac	1	1	0											
Sulfuric Acid	Total	A	A	0	A										
	Ad/Phos		0			0									
	Polym	A	A	0	B									B	
	Ureth	0	0												
TDI (mixed)	Total	A	A	0	B	0								B	
o-Toluidine	Polym	A	A	A	A	72			B						
	Ad/Phos		5			0									
	EPC	0	0			0									
	Vit		0			2,800					160,000				
Zinc Compounds	Total	0	5			2,800					160,000				

ATTACHMENT 10

BASF Corporation

BASF

CERTIFIED MAIL - RETURN RECEIPT REQUESTED
MDNR: P 121 664 370
WCEMD: P 121 664 371
WFD: P 121 664 372

June 30, 1993

Kent Kenagy
Title III Coordinator
Michigan Dept. of Natural Resources
Environmental Response Division
Title III Notification
300 S. Washington Square
Lansing, MI 48933

Mark Sparks
Wayne County Emergency Management Division
10250 Middlebelt Road
Detroit, MI 48242

Captain John Gregurich
Wyandotte Fire Department
266 Maple
Wyandotte, MI 48192

RE: Emergency Planning and Community Right-to-Know Act (EPCRA) Section 311 - MSDS Reporting

Dear Sir or Madame:

Pursuant to EPCRA 311, this submittal constitutes an updated list of the subject hazardous substances for the BASF Corporation site in Wyandotte, Michigan. The list groups chemicals into 5 hazard categories, as described in the footnotes on the attached MSDS Report.

If you have any questions concerning the attached information, please contact Doug Thiel, our Manager of Quality Assurance and Ecology Services at (313) 246-6209.

Sincerely,

Karen A. LeMieux
Ecology Services Engineer

Attachment

bc: CEAnderson, BMBarkel, RJCarr, RDavenport, SRDerters, NNDiaconnis, GTDurst, TMLynch, ROliver, RMRosen, JFSchneider, JATaylor, SWendzinski

File: EPCRA 311 - External Reports

Circulate: CDL, KAL, DPT

1609 Biddle Avenue, Wyandotte, Michigan 48192 (313) 246-6100

MSDS REPORT EPCRA SECTION 311

Hazardous Substances Reported Through 06/30/93
BASF Corporation Wyandotte, Michigan

Report Date: 07/01/93

Hazardous Substance	CAS Number	Hazard Category A	C	F	P	R	Hazardous Component(s)
1,4-Butanediol Bulk	110-63-4	X					
2-Butanol	78-92-2	X		X			
Acetic Anhydride	108-24-7	X		X			
Acrylonitrile	107-13-1	X	X	X			
Axkleen 900		X					Sodium Hydroxide
Batch (B3) Talc		X	X				Polycaprolactam
Batch PA(B3)-Cu Stab		X					Polycaprolactam
Bis-Phenol A	80-05-7	X	X				
Butane	106-97-8	X		X			
Carbon Black Regal 300 I	1333-86-4	X	X				Carbon Black
Chardol 570		X					Polyester and Polyether Polyols, Ethylene Glycol
Crown Ethers		X					1,6,11 - Trioxacyclopentadecane, var mol weights
Desmodur 15	3173-72-6	X	X				Naphthalene Diisocyanate
Dimethyl Formamide Liquid	68-12-2	X	X	X			
Dipropylene Glycol	25265-71-8	X	X				
Elastollan S-Series TPU		X					
Ethylene Glycol	107-21-1	X	X				
Ethylene Oxide	75-21-8	X	X	X			
Ethylenediamine	107-15-3	X	X	X			
Euthylen Black 00-6005 C4			X				Carbon Black, Polyethylene
Exxelor VA 1803	31069-12-3	X	X				Ethylene Propylene
Fiber Glass VET 20A 9600 TEX		X					Fibrous Glass
Fiber Glass VET 20B 9600 TEX		X	X				Fibrous Glass
Fiberglass - PPG 3540		X					Fibrous Glass
Filter Aid	68855-54-9		X				Diatomaceous Earth, Amorphous Silica
Gardobond 24 F		X	X				Hydrofluoric Acid, Hydrofluorosilicic Acid
Gardoclean 650		X	X				Sodium Nitrite, Tetrapotassium Pyrophosphate
Glycerine	56-81-5	X		X			
Heptane	142-82-5	X		X			
Hi Sil 213	63231-67-4		X				Silicon Dioxide
Hydrochloric Acid (liquid)	7647-01-0	X	X				
Hydrogen Chloride (gas)	7647-01-0	X	X				

Notes:

A = Acute (immediate) health hazard
C = Chronic (delayed) health hazard
F = Fire hazard
P = Sudden release of pressure hazard
R = Reactive hazard

MSDS REPORT EPCRA SECTION 311

Hazardous Substances Reported Through 06/30/93
BASF Corporation Wyandotte, Michigan

Report Date: 07/01/93

Hazardous Substance	CAS Number	Hazard Category A	C	F	P	R	Hazardous Component(s)
Sodium Silicate Solution	6834-92-0	X					
Styrene	100-42-5	X	X	X			
Sulfuric Acid 66	7664-93-9	X	X				
Terol 375		X	X				Ethylene Glycol
Tetrasodium Pyrophosphate, Anh	7722-88-5	X					
TMP, Molten	77-99-6	X					Trimethylolpropane
Toluene	108-88-3	X	X	X			
Toluene Diamine (TDA)	25376-45-8	X	X				
Toluene Diisocyanate (mixed)	26471-62-5	X	X				
Tridecylamine	2869-34-3	X					
Trimethylhydroquinone	700-13-0	X					
Ultradur B4300G6 Black 511		X					Fibrous Glass, Carbon Black
Ultramid 90	24993-04-2	X	X				Polyamide
Ultramid A3EG7 Grey 22591			X				Fibrous Glass
Ultramid A3EG7 Grey 22832			X				Fibrous Glass
Ultramid A3K White 00413			X				
Ultramid A3K White 15356		X	X				Titanium Dioxide
Ultramid A3K White 15390		X	X				
Ultramid A3Z Unc		X					
Ultramid B3 Natural	25038-54-4	X					Polycaprolactam
Ultramid B35 Natural	25038-54-4	X					Polycaprolactam
Ultramid B3EG10 White 15373		X	X				Polycaprolactam, Fibrous Glass, Zinc Sulfide
Ultramid B3EG3 Black 564		X	X				Polycaprolactam, Fibrous Glass, Carbon Black
Ultramid B3EG3 Unc		X	X				
Ultramid B3EG5 Black 00564		X	X				Polycaprolactam, Fibrous Glass, Carbon Black
Ultramid B3EG5 Blue 21446		X	X				Polycaprolactam, Fibrous Glass
Ultramid B3EG5 Green 19379		X	X				Polycaprolactam, Fibrous Glass
Ultramid B3EG5 Green 19393			X				Polycaprolactam, Fibrous Glass
Ultramid B3EG5 Grey 22882		X	X				Polycaprolactam, Fibrous Glass
Ultramid B3EG5 Red 17377		X	X				Polycaprolactam, Fibrous Glass
Ultramid B3EG5 Red 17426		X	X				Polycaprolactam, Fibrous Glass
Ultramid B3EG5 Red 17431		X	X				

Notes:

A = Acute (immediate) health hazard
C = Chronic (delayed) health hazard
F = Fire hazard
P = Sudden release of pressure hazard
R = Reactive hazard

SDWA-UIC

Observations

1. Are there any discharges other than sanitary waste (i.e., industrial wastes) into or onto (Including drain fields) the ground? Is an on-site septic disposal system used? Describe the discharges and disposal system.

NO

Interview Questions/Records Review

1. Does the facility have or has it had any wells (dug, drilled or driven), dry wells, leachfields, or septic systems? Did they receive(d) commercial or industrial waste (liquid and/or solid), cooling water, or drainage from roof drains, floor drains, or parking lots? If yes, give a description.

- Extraction and monitoring wells associated with FDC remediation are on-site. not disposal wells
- Historical TIO wells

2. Does the facility have a permit? _____

3. What is the current status of wells (active, abandoned, water construction, repairs)?

4. If the wells are inactive, what was the date they were last used? _____

5. Well Location _____1/4, _____1/4, _____1/4, Township ____, Range _____, Section _____. (Written Description, Landmarks, Street Intersections, or Geologic Descriptions with Lat/Long.)

	YES	NO
6. Maps of Facilities	____	____
Diagrams of Construction	____	____
Consultant Reports	____	____
Photographs	____	____
Fluid Analysis	____	____

7. Total Number of Wells: _____ Number of Wells Inspected: _____

8. Date of Original Construction: _____, Date of Modification: _____, Depth _____

9. Waste Disposal Formation and Depth _____

_____

10. Underground Source of Drinking Water (USDW) Name: _____

_____

Depth: _____, ( ) Confined ( ) Unconfined

11. Depth of Closest Water Wells: _____
Distance from Site: _____
Nearby Surface Waters Possibly Affected: _____

SDWA-PWS

Interview Questions/Record Reviews

1. What is the facility's source of drinking water? Does the facility have a private well? How many people does it serve?

City Water

2. Is the water sampled and analyzed for contaminants? Are the results reported to the State or EPA?

Yes

ENVIRONMENTAL ASSESSMENT

1. Is there any evidence of environmental impacts that haven't been addressed? Possible examples include:

- additional evidence of spills, leaks
- vegetation damage in the surrounding area
- odors in the surrounding neighborhood
- neighborhood covered with "dusts"
- poor water quality in streams near the facility

• groundwater contamination to be investigated under RCRA corrective action order

2, Were there situations of possible excessive occupational exposures that should be referred to OSHA?

none observed at time of inspection

P2

(1) Refer to Attachment II for a summary of EPCRA 313 POLLUTION PREVENTION DATA AND HAZARDOUS WASTE MINIMIZATION ACTIVITIES.

ATTACHMENT 11

BASF - Wyandotte

SITE SUMMARY OF 1992 EPCRA 313 POLLUTION PREVENTION DATA

		Source Reduction and Recycling Activities																					
		Released				Off-Site Energy Recovery				Recycled				On-Site Treatment				Off-Site Treatment				Event	Index
Chemical	Unit(s)	1991	1992	1993	1994	1991	1992	1993	1994	1991	1992	1993	1994	1991	1992	1993	1994	1991	1992	1993	1994	1992	1992
	Res Serv	85	74	74	74	55	183	183	183	0	0	0	0					60	38	38	38	0	1.13
	Polym	550	290	300	300	1,300	1,000	1,100	1,100	0	0	0	0	280,000	270,000	310,000	310,000					0	0.87
Acrylonitrile	Total	635	364	374	374	1,355	1,183	1,283	1,283	0	0	0	0	280,000	270,000	310,000	310,000	60	38	38	38	0	0.87
Bisphenol-A	Polym	260	1,300	260	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.00
Chloromethane	Res Serv	900	962	627	627	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.70
Diaminotoluene	Polym	74	62	62	62	1,000	0	0	0	0	0	0	0	0	0	0	0	37	1,000	1,000	1,000	0	1.02
	EPO	5	5	5	5	0	0	0	0	15,000	19,000	15,000	15,000	0	0	0	0	0	0	0	0	0	1.20
	Polym	20	20	20	20	0	0	0	0	0	0	0	0	0	0	0	0	18,000	23,000	24,000	24,000	0	1.27
	Ureth	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	0	1.00
Ethylene Glycol	Total	25	25	25	25	0	0	0	0	15,000	19,000	15,000	15,000	0	0	0	0	18,002	23,002	24,002	24,002	0	1.27
	Res Serv	12	64	67	65	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	1.00
	Polym	9,100	2,600	2,000	750	0	0	0	0	0	0	0	0	21,000	23,000	24,000	25,000	500	250	250	250	0	0.84
Ethylene Oxide	Total	9,112	2,664	2,067	815	0	0	0	0	0	0	0	0	21,000	23,000	24,000	25,000	512	250	250	250	0	0.84
Glycol Ethers	Ad/Phos	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	145	1,680	0	0	0	11.70
	Ad/Phos	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3.15
	Vit	1,600	4,521	4,700	5,000	0	0	0	0	0	0	0	0	68,000	87,000	91,000	96,000	81	840	880	920	5	1.38
Hydrochloric Acid	Total	1,600	4,530	4,700	5,000	0	0	0	0	0	0	0	0	68,000	87,000	91,000	96,000	81	842	880	920	5	2.26
Manganese Compds	Ad/Phos	0	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.48
	Polym	260	15	15	15	660	0	0	0	0	0	0	0	0	390	390	390	330	910	1,000	1,000	0	0.51
	TPU	32	242	242	242	8,960	0	0	0	0	0	0	0	0	203	203	203	1,120	17,600	17,600	17,600	0	3.50
	Ureth	0	0	0	0					0	0	0	0	2	2	2	2					0	1.00
MBI (MDI)	Total	292	257	257	257	9,620	0	0	0	0	0	0	0	2	595	595	595	1,450	18,510	18,600	18,600	0	2.00
	Ad/Phos	294	262	78	0	15,107	19,000	6,000	0	0	0	0	0	0	0	0	0	0	984	295	0	0	0.88
	Res Serv	0	160	160	160	0	0	0	0	0	0	0	0	0	0	0	0	15	4,100	4,100	4,100	0	50.00
	Polym	180	750	250	250	47	0	0	0	0	0	0	0	0	0	0	0	130	280	280	280	0	1.11
	Vit	1,300	2,385	2,500	2,600	0	1,000	1,000	1,000	0	0	0	0	0	0	0	0	124,000	139,850	150,000	155,000	0	1.38
Methanol	Total	1,774	3,557	2,988	3,010	15,154	20,000	7,000	1,000	0	0	0	0	0	0	0	0	124,145	145,214	154,675	159,380	0	2.97
	Ad/Phos	5	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.65
	EPC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.00
Nickel Compds	Total	5	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.32

BASF – Wyandotte

SITE SUMMARY OF 1992 EPCRA 313 POLLUTION PREVENTION DATA

		Source Reduction and Recycling Activities																					
		Released				Off-Site Energy Recovery				Recycled				On-Site Treatment				Off-Site Treatment				Event	Index
Chemical	Unit(s)	1991	1992	1993	1994	1991	1992	1993	1994	1991	1992	1993	1994	1991	1992	1993	1994	1991	1992	1993	1994	1992	1992
	Ad/Phos	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.05
	EPO	10	10	10	10	0	0	0	0	0	0	0	0	150,000	150,000	220,000	220,000	0	0	0	0	0	1.20
	Res Serv	0	0	0	0	0	0	0	0	0	0	0	0	0	430	0	0	0	0	0	0	17	
Nitric Acid	Total	13	10	10	10	0	0	0	0	0	0	0	0	150,000	150,430	220,000	220,000	0	0	0	0	17	1.20
	Ad/Phos	1	4	0	0	0	0	0	0	0	0	0	0	49	0	0	0	0	9	0	0	0	3.81
	Res Serv	0	0	0	0	0	0	0	0	0	0	0	0	250	250	250	250	0	0	0	0	0	2.50
	Polym	10	10	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.00
Phosphoric Acid	Total	11	14	10	10	0	0	0	0	0	0	0	0	299	250	250	250	0	9	0	0	0	2.58
	Res Serv	13	148	145	143	0	0	0	0	0	0	0	0	0	0	0	0	128	0	0	0	0	1.00
	Polym	57,300	20,100	11,200	11,200	0	0	0	0	0	0	0	0	122,000	140,000	143,000	153,000	1,650	6,000	6,200	6,200	0	0.88
Propylene Oxide	Total	57,313	20,248	11,345	11,343	0	0	0	0	0	0	0	0	122,000	140,000	143,000	153,000	1,778	6,000	6,200	6,200	0	0.88
	Res Serv	155	38	38	38	140	93	93	93	0	0	0	0	0	0	0	0	125	20	20	20	0	1.13
	Polym	1,200	1,000	1,000	1,000	770	600	600	600	0	0	0	0	160,000	141,000	162,000	170,000	0	100	0	0	0	0.88
Styrene	Total	1,355	1,038	1,038	1,038	910	693	693	693	0	0	0	0	160,000	141,000	162,000	170,000	125	120	20	20	0	0.88
	Elast	10	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.80
	Polym	10	15	15	15	0	0	0	0	0	0	0	0	5	5	5	5	0	0	0	0	0	0.67
	St Fac	2	2	2	2	0	0	0	0	0	0	0	0	194,270	201,600	200,000	200,500	0	0	0	0	0	1.05
Sulfuric Acid	Total	22	19	19	19	0	0	0	0	0	0	0	0	194,275	201,605	200,005	200,505	0	0	0	0	0	1.05
	Ad/Phos	11	0	0	0	8	0	0	0	0	0	0	0	70	0	0	0	274	0	0	0	0	0.56
	Polym	15	260	260	260	1	0	0	0	0	0	0	0	47	557	500	450	5	459	410	350	0	1.30
	Ureth	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	0	0	0	0	0	1.00
TDI (mixed)	Total	26	260	260	260	9	0	0	0	0	0	0	0	119	557	500	450	279	459	410	350	0	0.93
o-Toluidine	Polym	20	20	20	15	0	0	0	0	0	0	0	0	0	0	0	0	35	260	260	200	0	1.75
	Ad/Phos	1	79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	87	0	0	0	0	4.96
	EPC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.00
	Vit	0	160,000	84,000	0	0	0	0	0	0	0	84,000	180,000	0	0	0	0	124,200	2,800	2,800	2,800	0	1.38
Zinc Compounds	Total	1	160,079	84,000	0	0	0	0	0	0	0	84,000	180,000	0	0	0	0	124,287	2,800	2,800	2,800	0	2.40

WASTE MINIMIZATION ACTIVITIES

HAZARDOUS WASTE

- NMP Reclamation (2,300 gals)
- Isocyanate Resale (56,000 lbs)
- Sulfuric Acid Resale
- DMF Reclamation *
- Zinc Chloride Recycling *
- Polyol Filter Cake Reduction

NONHAZARDOUS WASTE

- Empty Container Reclamation (21,144 cont. ~ 436 K lbs)
- Pallet Recycling/Reuse (80,000 lbs)
- Office Paper Recycling (42,000 lbs)
- Cardboard Recycling (70,000 lbs)
- Plastic Recycling *, (93,000 lbs)
- Scrap Metal Recycling (500,000 lbs)
- Battery Recycling (1,000 lbs)
- Polyol Resale
- Resin Resale (153,000 lbs.)
- EPO Resale (100,000 lbs)

* - implementing action plan

WMT00130